

SWIFT Adapter User's Guide

Version 3.5



SWIFT	4
TERMINOLOGY	5
SWIFT CONFIGURATION	
SWIFT MESSAGE LIBRARY Custom SWIFT messages	6 7
CREATING A SWIFT FORMAT	
CREATING A SWIFT FORMAT BASED ON AN EXISTING SWIFT MESSAGE FORMAT CREATING A SWIFT FORMAT FROM AN EMPTY MESSAGE FORMAT	10 16
ENTERING THE SWIFT SPECIFICATION	
SWIET SEQUENCE	20
Sequence Without Delimiters	20
Sequence With Start and Fnd Delimiters	21
Sequence With Start Und End Detiniters.	22
ADDING A SWIFT SEQUENCE	22
Adding a SWIFT Sequence without Delimiters	24
Adding a SWIFT Sequence with Start and End Delimiters	26
Adding a SWIFT Sequence with Start Delimiter	
ADDING A SWIFT FIELD	29
Adding a New Generic Field	
Adding Field Options	
Entering an Option Format	
Entering an Option Specification	
Removing Field Options	
Adding Qualifiers and Associating them with Options	
Specifying OR Option for a Qualifier	
Adding a Non-Generic Field	
Specifying Field Definition and Usage	43
Mapping Formats with Specification (Sub-fields)	43
Representing Complex Formats in Designer	47
ADDING COPY OF FIELDS	53
UPDATING A SWIFT FIELD	55
Customize Field	
REMOVING A SWIFT FIELD	60
ADDING VALIDATIONS FOR A SUB-FIELD	61
Specifying properties common for all validations	63
Specifying Error Code	64
Specifying Field Options	64
Specifying Qualifiers	64
Specifying Null Field	64
Specifying Comment	65
Adding Code validation	65
Specifying Codes	
Removing Codes	
Adding T26 Validation	
Adding T14 Validation	
Adding Date Validation	
Specifying Date Format	



Adding Currency Code Validation	69
Adding Country Code Validation	69
Adding Time Offset Validation	
Adding BIC validation	
Adding C05 validation	
Adding Decimal Validation	
Adding Party Identification Validation	
Specifying Party Identification Codes	73
REMOVING VALIDATIONS FROM A SUB FIELD	74
SWIFT EXTERNAL MESSAGE UI	74
SWIFT EXTERNAL FORMAT UI	76
EXTERNAL FORMAT - SWIFT (HEADER/TRAILER)	76
SWIFT Input Header/Trailer	
SWIFT Output Header/Trailer	
SWIFT Input/Output Header/Trailer	
FISC Header	82
Swift Format Options	83
SWIFT USER MESSAGE (DATA)	85
SWIFT Sequence Info	87
SWIFT Field Info (Generic)	88
SWIFT Field Qualifier Info	89
SWIFT Field Info (Non-Generic)	
SWIFT Sub Field Info	
System/Service Message	
Creating an empty Service/System message format	92
Creating a SWIFT System/Service Format Based on an Existing SWIFT Message Format	94
Adding a System Field	
Adding a Simple Field	
Adding a Complex Field	
Fields Separated by OR/AND	100
Adding a Group	101
Deleting a Field/Group	102
System Field Dictionary	102
Specifying Validations for a Field	103
Specifying Validations for a Sub-field	103
EXPANDING/COLLAPSING SWIFT FIELDS	104
Expanding Fields	105
Collapsing Fields	105
EXPORTING A SWIFT MESSAGE FORMAT TO LIBRARY	106
Exporting a SWIFT Message Format	107
Importing a SWIFT Message Format	109
Sample Exported HTML File	110



SWIFT

S.W.I.F.T. SCRL is the abbreviation for Society for Worldwide Interbank Financial Telecommunication, Societé Coopérative à Responsibilité Limitée. SWIFT's purpose is to provide technology-based communication services across all financial markets through member banks so that they can profitably meet their own and their end-customers' needs.

In a financial perspective, standards enable financial institutions to move from manual to automated initiation and processing of financial transactions. The message text standards have been developed to support the business transactions of S.W.I.F.T. users. To ensure that the multitude of practices and conventions of users are in harmony, financial messages transmitted via the S.W.I.F.T. network must adhere to the message text standards.

There are important benefits because of standardization of messages. These include:

automation, reduced risk of errors and misunderstandings, reduced operating costs, improved productivity, increased efficiency in processing of messages (routing and preparation), faster and more cost effective account reconciliation, and the ability to maintain more comprehensive management information.

SWIFT messages are represented by a three-digit number, for example, MT 112.

The first digit defines the **message category**, indicating the general usage of the message. Here, Category 1 refers to Customer Payments & Cheques.

The second digit of the message type indicates the **message group**. For example, Message group 1 refers to Cheque Payments.

The third digit indicates the particular **type of message**, representing a specific function of the message. In our example, Message type 2 refers to Status of a Request for Stop Payment of a Cheque.

See Also:

<u>Terminology</u> <u>Creating a SWIFT Format</u> <u>Entering the SWIFT Specification</u> <u>SWIFT External Message UI</u> <u>SWIFT External Format UI</u>



Export a SWIFT Message Format

Terminology

Sequence

Each message type contains zero, one or more sequences. A sequence is a group of related information made up of one or more fields and/or sub-sequences. A sequence may or may not be delimited. For delimiting a sequence use a start indicator and end indicator or start indicator alone.

SubSequence

A subsequence is a sequence nested within another sequence. The fields contained within each subsequence can be either discrete (non-generic) or generic.

Generic Field

A generic field is used to describe groups of business data that are common throughout the messages. It is then made unique by the addition of a qualifier. Generic fields allow for the consistent identification of data in a logical and structured way. Each generic field will always have the same meaning across all sensitive messages.

Non-Generic Field

A non-generic field, unlike a generic field, is used for one purpose only.

Qualifier

A qualifier is one that gives a complete meaning about a generic field. Qualifiers allow the identification of the type of data.

See Also:

<u>SWIFT</u> <u>Creating a SWIFT Format</u>



SWIFT Configuration

SWIFT field dictionary and message library are stored under <installation dir>\config\swift folder. This folder contains the following files and folders.

QualifierList.csv	List SWIFT qualifiers with description.
SwiftField.xml	Field dictionary for ISO15022 & ISO7754 user messages
SwiftSystemField.xml	Field dictionary for system and service messages
format	Directory contains all SWIFT messages.

SWIFT message library

The *format* directory contains all the SWIFT messages and it is referred to as the SWIFT message library. Messages of each version are stored as XML in a separate directory with the same name as the version. For instance, SRG 2008 messages are stored under the directory config/swift/format/ SRG 2008. This scheme allows you to manage multiple versions of SWIFT messages side by side. For instance, you can have MT101.xml under both SRG 2007 and SRG 2008 folders.



When you create a new SWIFT message in a cartridge from the message library the following dialog is displayed. Note that the messages are grouped based on version and only messages belonging to a particular version is displayed at a time. You can switch to a different version by selecting it from the 'version' combo.





Custom SWIFT messages

Depending on your requirement you may have to customize the SWIFT messages or make minor modifications to it. One such case is GSCC SWIFT messages. If these customized messages are used often or across the enterprise, you may want to make use of the SWIFT message library feature to store the customized SWIFT messages.

- 1. Since the customized messages are not the same as the original SRG messages choose a different version name for them. For instance "GSCC SRG 2008" can be used as the version name for SRG 2008 messages customized for GSCC.
- 2. When you export the modified messages using the "Save SWIFT Message Format" option use this version name.



Save Swift Message Format		<u>2</u>
Find		Name
	Find	MT502
/ersions		Version
GSCC SRG 2008 🔹		GSCC SRG 2008
Messanes		Detailed Name
0- 🕤 Securities Markets		Order to Buy or Sell
		Category
		Securities Markets
		Description
		This message is sent by an instructing party, eg, a client, or its authorised representative, to an executing party, eg,broker-dealer, or where permitted, directly by an executing party to a point of execution such as an exchange. It may be used in broker-to-broker communications.
		This message is used to instruct the executing party to buy or sell a given quantity of a specified financial instrument.
		It may also be used to:
		a) request the cancellation of a previously sent order b) replace a previously sent order c) duplicate an order previously sent

3. The exported message will be saved under a directory by the same name as the version.



Once you have exported all the customized messages to this directory, you can make of copy this directory to all Designer installations as required.

4. Note that the version name will also be included in the message definition (XML) as shown below.

```
<?xml version="1.0" encoding="UTF-8" ?>
<SwiftMessageFormat name="MT502">
<standard-version>GSCC SRG 2008</standard-version>
```



This detail is generally not important; but if you are manually editing the version (in say messages you already have) in XML's remember to update the standard-version tag appropriately.

The advantage of the above is that you have the same message library support for your customized SWIFT messages just like standard SWIFT messages.

See Also:

SWIFT Configuration

Creating a SWIFT Format

A SWIFT message format can be created in the designer either from

Existing SWIFT message format, or Empty message format

When using an existing format, the same set of sequences and fields are available for the newly created format. Though the mandatory elements cannot be changed, the user has the option of enabling or disabling the optional sequences and fields as per requirement. The existing SWIFT formats are available as XML files in the location <installation dir>\config\swift\format.

When using an empty message format, the user has to add each sequence and field as per the specification. This happens when the format has to be entered the first time, after which the format can be saved and used to build other formats using the first option.

See Also:

<u>Creating a SWIFT Format based on an existing SWIFT message format</u> <u>Creating a SWIFT Format from an empty message format</u> <u>Exporting a SWIFT Message Format to Library</u>



Creating a SWIFT Format Based on an Existing SWIFT Message Format

- Right-click the Cartridge node in the Designer. Select the New External Message menu item from the context menu to create a SWIFT external format.
- 2. In the **New External Message** dialog that appears enter the **Transformation Name** and select **SWIFT** from the **External Message** listbox. Click OK.

🗟 New External N	lessage	×
Parse Validate Serialize	Name External Message SWIFT A standard for in that is used by s financial instituti payments, fund securities/deriva to http://www.swi	MT950 SWIFT \checkmark
	ок	Cancel 🕜 Help

 In the New Swift Message Format dialog that appears, select an existing format based on which the new format is to be created. Select Create based on selected format radio button. Click Next.



🗟 New Swift Message Format	×				
Find	Name				
950 Find	МТ950				
Versions SRG 2007	Version SRG 2007				
Messages Cash Management & Custo MT950 Customer Payments & Che Securities Markets Service System	Detailed Name Statement Message Category Cash Management & Customer Status Description This message type is sent by an account servicing institution to an account owner. It is used to transmit detailed information about all entries, whether or not caused by a S.W.I.F.T. message, booked to the account. NOTE: Please do not disable the validation 'DC-FIX'. It provides fix for the parsing				
Message Creation Options Create empty message Create based on selected message Back Next Cancel 2 Help					

4. In the next dialog that appears you have various options to choose Header/Trailer, Validation and Edit options as shown in the following picture:



🗃 New Swift Message Format	×
Header Trailer Options	
Header/Trailer SWIFT Input	
SWIFT Input	
Validation Option	
SWIFT Input/Output	
Include all VFICC Header	
O Do not includ e rangadons	
Edit Options	
Read only mode (message cannot be modified)	
 Allow changes (fields and validations can be modified) 	
▲ Back Finish Cancel A Help	

- 5. As seen in the above picture, you have the option to include specific Header/Trailer (SWIFT Input/SWIFT Output/SWIFT Input Output/FICC Header(custom) or no Header/Trailer) from the list box. (Note that if you choose SWIFT Input or SWIFT Output, the Basic Header and Application Header appearing in the Header section UI of the message are set as mandatory. The Header/Trailer fields cannot be modified/removed from UI). You have the option to include or not to include validations. You also have the option to create the message format in Read Only mode or editable mode. After selecting the required options, click **Finish** button.
- 6. The new format is created in the Designer as shown below.



🖺 Explorer 🛛 🖡 🗙	External Format - SWIFT [MT9	50]		
🗈 🛍 🗧 🕶 🕶 🕶	Header Data Trailer			
🗟 MT950	🔲 🖽 🗅 🎽 👔	} 🖟 🤝 🛛	÷ 🖻	
	Field Name	Туре	Enabled	Description
(a) Validation Bulan	20	Swift Field	🗾 Tra	ansaction Reference Number 🛛 🔺
	♦ Reference	String	No	Letter Format
	25	Swift Field	⊮ Ac	count Identification
	♦ Account	String	No	Letter Format
	🔿 28C	Swift Field	🗾 Sta	atement Number/Sequence
	Statement_Number	Integer	с	Format
	Sequence_Number	Integer	с	Format
	🤿 60a	Swift Field	P OF	ening Balance
	♦ D/C_Mark	String	м,	F Formats
	🔶 Date	String	м,	F Formats
		String	ьа	
	Swift Field Info (Non-Generic)-			
	Reporting Fashle	d Ontion	Format	Specification
		16	×	(Reference)
	Optional			

- 7. Note that the Design Element UI tool bar buttons in the figure are disabled thereby not allowing the user to modify the format as we have chosen Read Only mode in the Edit options.
- 8. The **Enabled** column of the format table allows the user to pick from the optional fields, qualifiers and options for the format. By default all the optional entities are enabled. To enable a qualifier, select the field in the format table and select or deselect the check box in the **Enabled** column for the qualifiers displayed in the **SWIFT Field Info (Generic)** panel below the table.



b 🔠 📝 🔠	仓县、	(m 🖘					
Field	Name	D	ata Type	Enabl		Des	cription
📿 23G		Sw	ift Field	V	Functi	on of the	e Message
📿 98a		Sw	ift Field		Date/	Time	
🤯 99B		Sw	ift Field	Ľ	Numb	erCount	
🥝 SETT		Qu	alifier	Ľ	Curre	nt Settle	ment Instructio
🥝 TOSE		Qu	alifier	Ľ	Total (of Linked	d Settlement Ins
 TORE 		Qu	alifier		Total (of Linked	d Receipt Instru
wift Field Info (Gener	ic)						
		I					
Repeating 🔽	Enabled	Presence	e Qualifie	er Repe	eating	Options	Description
	~	0	SETT		E	3	Current Settl 🧉
Optional 🔽	~	0	TOSE		E	3	Total of Link 🔋
			TODE				Total of Link 📃

Similarly to pick the options for a qualifier, select the qualifier in the table and select or deselect the check box in the **SWIFT Field Qualifier Info** panel below.

e	ader Da	ta Trail	er				
庙田 🔡 猫 介 🖡 🖇 🔿							
		Field	Name		Data Type	Enabl	Description
		92B			Swift Field		Rate
	🔁 F 👘				Swift Se		Other Parties
	9 🐼 9	5a			Swift Field	V	Party
	Q	EXCH			Qualifier		Stock Exchange
	0	MEOR			Qualifier		Originator of Message
	Q	MERE			Qualifier		Recipient of Message
R	rift Field Q	ualifier In	fo Enabl	Option	Form	art	Specification
	opeaning		v	P	:4!c(//4!a2	2!a2	(Qualifier) (BIC/BEI)
0	ptional	$\mathbf{P}_{\mathbf{r}}$		Q	:4!c//4*35	ix	(Qualifier) (Name & Address)
				D	1410/00/24		(ouslifier) (Data Course Coho



To pick the options for a non-generic field, select the field in the table and select or deselect the check box in the **Enabled** column of the options displayed in the **SWIFT Field Info (Non-Generic)** panel below the table.

External Format - Swift [MT543	in]					
Header Data Trailer						
后田 🛛 🖄 介 🖡 🗢 👄						
Field Name	[Data Type	Enabl	Description		
📿 90a	S	wift Field	~	Deal Price	•	
📿 99A	S	wift Field	r	NumberCount	200	
🖓 35B	S	wift Field	V	Identification of the Financial I		
Identification_Of_Secur		String B Format		B Format		
Description_Of	_Securit _i St	String B Format		B Format		
🔂 B1	S	wift Se	Ľ	Financial Instrument Attributes		
					_	
Repeating Enabled	1 Option	Form	nat	Specification		
Ľ	В	(ISIN1!e	12!c)	(Identification Of Security)(D		
Optional						
				0		

See Also:

<u>Creating a SWIFT Format from an empty message format</u> <u>Entering the SWIFT Specification</u> <u>Exporting a SWIFT Message Format to Library</u>



Creating a SWIFT Format from an empty message format

- Right-click the Cartridge node in Designer and select the New External Message menu item from the context menu to create a SWIFT external format.
- 2. In the **New External Message** dialog that appears, enter the **Transformation Name** and select **SWIFT** from the **External Message** listbox. Click OK.

🗟 New External N	Message	x
Parse Validate	Name External Message SWIFT A standard for in communications, banks and other covers customer exchange trading more information	MT950 SWIFT ternational financial , that is used by several thousand financial institutions worldwide. It payments, fund transfers, foreign g, securities/derivatives trading. For n refer to http://www.swift.com
	OK Ca	ancel 🕜 Help

3. In the New Swift Message Format dialog that appears, select Create empty message format radio button. Click Next.



🗟 New Swift Message Format	×
Find Find	Name
Versions SRG 2007	Version
Messages Cash Management & Cus Customer Payments & C	Detailed Name Category
• Service • System	Description
Message Creation Options Oreate empty message Create based on selected m	essage
d Back Next	Cancel 🕜 Help

4. In the next dialog box that appears see that the "Validation Options" and "Edit Options" pane are disabled as they are not applicable in this case. You have the option to include specific Header/Trailer (SWIFT Input/SWIFT Output/SWIFt Input/Output/FICC Header(custom) or no Header/Trailer as shown in the following picture. (Note that if you choose SWIFT Input or SWIFT Output, the Basic Header and Application Header appearing in the Header section UI of the message are set as mandatory. The Header/Trailer fields cannot be modified/removed from UI).



🗟 New Swift Messa	age Format		X
Header Trailer C	ptions		
Header/Trailer	SWIFT Input 🔻	٦	
	SWIFT Input		
Validation Optio	SWIFT Output		
Include all v	FICC Header		
O Do not inclu	None		
Edit Options			
Read only m	node (message cannot b	e modified)	
O Allow change	es (fields and validations	can be modified)	
Message type O	ptions		
Message Type	User 🔻		
🖌 В	ack Finish C	ancel 🕜 Help	

- 5. After selecting the required Header/Trailer from the list box, click **Finish** button.
- 6. An empty message format is created as shown below.



Explorer	External Format - Swift [IM950]	
Image: State	Header Data Trailer	
Processing Rules Sevents Management Page Events Management Page External Format Source Strengt Rules Mapping Rules	Field Name Dat	ta Type Description
	-Properties	

<u>Creating a SWIFT Format based on an existing SWIFT message format</u> <u>Entering the SWIFT Specification</u> <u>Exporting a SWIFT Message Format to Library</u>

Entering the SWIFT Specification

A SWIFT message is composed of sequences and fields. A sequence is a group of related information made up of one or more fields and/or sub-sequences. A field may be either generic or non-generic.

The user can construct a SWIFT message in the External Format UI by adding sequences/fields and specifying properties for them.

See Also:

Terminology SWIFT External Format UI SWIFT Sequence Adding a SWIFT Sequence Adding a SWIFT Field Updating a SWIFT Field Customize Field Removing a SWIFT Field Adding Copy of Fields Adding validations for a sub-field



Removing validations from a sub field

SWIFT Sequence

A **Sequence** is a group of related information, delimited in most of SWIFT message formats. However, there are a few formats, which have sequences without delimiters. The Designer provides for creating sequences with or without delimiters. Furthermore, the sequences with delimiters either have only the start delimiter, or both the start and end delimiters, depending on the format's specification. An example of each of the three cases is as follows.

See Also:

Sequence Without Delimiters Sequence With Start and End Delimiters Sequence With Start Delimiter

Sequence Without Delimiters

Consider the message MT101. An extract of the format is given below.

Status	Тад	Field Name	Content/Options			
Mandatory Sequence A General Information						
М	20	Sender's Reference	16x			

.....

0	25	Authorisation	35x			
>	>Mandatory Repetitive Sequence B Transaction Details					
М	21	Transaction Reference	16x			
0	21F	F/X Deal Reference	16x			

.....

0	36	Exchange Rate	12d
---	----	---------------	-----



-----|

Note sequences A and B of this format. They have neither the start delimiter nor the end delimiter. To add such a sequence, see Add a SWIFT Sequence without Delimiters.

See Also:

Sequence With Start and End Delimiters Sequence With Start Delimiter

Sequence With Start and End Delimiters

Consider the message MT543. An extract of the format is given below.

Status	Тад	Qual ifier	Generic Field Name	Detailed Field Name	Content/Options	
Mandat	Mandatory Sequence A General Information					
м	16R			Start of Block	GENL	
М	20C	SEM E	Reference	Sender's Reference	:4!c//16x	

•••••

·····

	> Repetitive Optional Subsequence A1 Linkages					
М	16R			Start of Block	LINK	
0	22F	LINK	Indicator	Linkage Type Indicator	:4!c/[8c]/4!c	
0	13A	LINK	Number Identification	Linked Transaction	:4!c//3!c	
М	20C	4!c	Reference	(see qualifier description)	:4!c//16x	
М	16S			End of Block	LINK	



	End of Subsequence A1 Linkages						
М	16S			End of Block	GENL		
En Ma	End of Sequence A General Information Mandatory Sequence B Trade Details						
М	16R			Start of Block	TRADDET		
0	94B	TRAD	Place	Place of Trade	:4!c/[8c]/4!c[/30x]		
	>		-				

.....

.....

Note that in the above format, the sequences A and A1 have the 'Start of Block' field 16R and the 'End of Block' field 16S to indicate a sequence. To add such a sequence, see <u>Adding a SWIFT Sequence with Start and End Delimiters.</u>

See Also:

Sequence Without Delimiters Sequence With Start Delimiter

Sequence With Start Delimiter

Consider the message MT300. An extract of the format is given below.

Statu s	Тад	Field Name	Content/Options			
Manda	Mandatory Sequence A General Information					
М	15A	New Sequence	(CrLf)			
М	20	Sender's Reference	16x			



Statu s	Тад	Field Name	Content/Options
0	21	Related Reference	16x

.....

.....

Mandatory Sequence B Transaction Details						
М	15B	New Sequence (CrLf)				
М	зот	Trade Date	8!n			
М	30V	Value Date	8!n			
М	36	Exchange Rate 12d				

.....

•••••

.....

Optional Sequence C Optional General Information								
М	15C	5C New Sequence (CrLf)						
0	29A	Contact Information	4*35x					

·····

.....

Note that the above message has the start indicator field 15X – New Sequence for the sequences A, B, C, etc. But there is no end indicator. To add such a sequence, see <u>Adding a SWIFT Sequence with Start Delimiter</u>.

See Also:

Sequence Without Delimiters Sequence With Start and End Delimiters



Adding a SWIFT Sequence

A sequence is a group of related information made up of one or more fields and/or sub-sequences. A sequence may or may not be delimited. Three types of SWIFT sequences can be added. They are

Sequence Without Delimiters Sequence With Start and End Delimiters Sequence With Start Delimiter

See Also:

Adding a SWIFT Sequence without Delimiters Adding a SWIFT Sequence with Start and End Delimiters Adding a SWIFT Sequence with Start Delimiter Adding a SWIFT Field Adding Copy of Fields

Adding a SWIFT Sequence without Delimiters

- Click the Add New Sequence button in the toolbar of the External Format
 SWIFT UI.
- 2. The SWIFT Sequence dialog appears. Enter the Sequence Name and Description.



	C	· · ·	
0	5 W I	гъел	uence

🗟 Swift Sequenc	e	×
Sequence Name	В	
Description	Transaction Details	
Sequence Delimit	er	Sequence Properties
None		🗾 Mandatory
O Block Delimite	d	✓ Repeating
🔿 New Sequen	ce Indicator	
Code		
Start Of Block		Format
End Of Block		Format
	ОК	Cancel

- 3. Select None in Sequence Delimiter. Select the Mandatory and Repeating properties of the sequence as required.
- 4. For this case, the last section about the delimiters and their format is not required and hence disabled. Click OK.
- 5. The new sequence is added to the format as shown below.



External Format - Swift [IF101] 🔗						
Header Data Trailer						
🚍 🗃 📝 褡目 🏠 🦀 🔿						
Field Name	Data Type	Description				
🗀 A	Swift Sequence	General Information				
🔂 В	Swift Sequence	Transaction Details				
Swift Sequence Info	ode					
Optional						

<u>Sequence Without Delimiters</u> <u>Adding a SWIFT Sequence with Start and End Delimiters</u> <u>Adding a SWIFT Sequence with Start Delimiter</u>

Adding a SWIFT Sequence with Start and End Delimiters

- Click the Add New Sequence button in the toolbar of the External Format
 SWIFT UI.
- 2. The SWIFT Sequence dialog appears. Enter the Sequence Name and Description.



🍯 Swift Sequen	ce			2
Sequence Name	E			
Description	Description Settlement Deta			
Sequence Delim	iter	1	Sequenc	e Properties
⊖ None				datory
Block Delimit	Block Delimited			eating
O New Seque	nce Indicator			
		1		
Code	SETDET			
Start Of Block	16R		Format	16c
End Of Block	16S		Format	16c
	ОК	(Cancel	

- 3. Select Block Delimited in **Sequence Delimiter**. Select the Mandatory and Repeating properties of the sequence as per the specification.
- 4. The Start Of Block and End Of Block text fields are automatically populated with values 16R and 16S and the corresponding formats are populated with value 16c when the Sequence Delimiter is specified in the step above. They can be modified if required.
- 5. Enter the code (In case of block delimited sequence, only if you give Code you will be able to add the sequence, so Code is mandatory not optional) in the **Code** text field. Click OK.
- 6. The sequence is added to the format as below.



External Format - Swift [MT101] 🔗								
Header Data Trailer								
📰 🔃 🍃 🎬	🚍 语 隆 🐴 🏠 🦊 🖛 🖚							
Field Name	Data Type	Description						
🗀 A	Swift Sequence	General Information						
🗀 в	Swift Sequence	Transaction Details						
🔁 E	Swift Sequence	Settlement Details						
0								
Swift Sequence into								
Repeating	Repeating Code SETDET							
Optional								

Sequence With Start and End Delimiters Adding a SWIFT Sequence without Delimiters Adding a SWIFT Sequence with Start Delimiter

Adding a SWIFT Sequence with Start Delimiter

- Click the Add New Sequence button in the toolbar of the External Format
 SWIFT UI.
- 2. The SWIFT Sequence dialog appears. Enter the Sequence Name and Description.



🗟 Swift Sequence	X
Sequence Name 🛛 🗛	
Description General 1	Information
Sequence Delimiter	Sequence Properties
○ None	Mandatory
O Block Delimited	Repeating
New Sequence Indicator	r
Code	
Start Of Block 15A	Format
End Of Block	Format
	OK Cancel

- 3. Select New Sequence Indicator in **Sequence Delimiter**. Select the Mandatory and Repeating properties of the sequence as per the specification.
- 4. The Start Of Block text field is automatically populated with value 15A when the Sequence Delimiter is specified in the step above. This can be changed to your requirement. The End Of Block and Code are not relevant for this case and hence disabled. Click OK.
- 5. The sequence is added to the format as in the previous cases.

Sequence With Start Delimiter Adding a SWIFT Sequence without Delimiters Adding a SWIFT Sequence with Start and End Delimiters

Adding a SWIFT Field

Two types of SWIFT fields can be added in the SWIFT External Format UI.

Generic Field- It is used to describe group of business data that are common throughout the messages. It is then made unique by the addition of a qualifier.



Non Generic Field- Unlike a generic field, is used for one purpose only.

See Also:

Terminology Adding a new Generic Field Adding a Non-Generic Field Updating a SWIFT Field Removing a SWIFT Field Customize Field Adding validations for a sub-field Removing validations from a sub field Adding Copy of Fields Adding a SWIFT Sequence

Adding a New Generic Field

Generic fields are used to describe the groups of business data that are common throughout the messages. A generic field value always starts with a colon (:), followed by a Qualifier (of format 4!c), followed by zero or more sub-fields. To add a generic field to the format follow the steps given below.

- 1. Click the Add New SWIFT Field button in the toolbar of the External Format SWIFT UI. The Create Field dialog appears.
- 2. Enter the field tag in the **Tag** combo box and press **Enter**. The toolbar buttons of the options and qualifiers table are now enabled.



9		Description						
5	▼ Party Remove						Customize	
n Xn ~								
	Ontion	Format			Constituent	ion	Dec	cuintion
Selected	C	:4!c//2!a		(Qualifier)	I (Country Code)	IOII	Des	chpuon
	P	:4!c(//4!a2!a2	2!c[3!	(Qualifier)	(BIC/BEI)			
	Q	:4!c//4*35×	4!c//4*35x (Qualifier) (Name & Address)					
	R	:4!c/8c/34x		(Qualifier)	I (Data Source So	heme) (Proprieta		
Ľ	s	:4!c/[8c]/4!c/:	4!c/[8c]/4!c/2!a/3 (Qualifier) (Data Source Scheme) (Type of					
	U	:4!¢//3*35×	:4!c//3*35x (Qualifier) (Name)				8	
		:4/c//10*35x (Qualifier) (Name & Address)						
	v	:4/c//10*35×		(Oualifier)	L (Name & Addres	is)	ition % Usage	
Generic Fi	eld	:41c//10*35x		(Oualifier)	L(Name & Addres	Defir	ition & Usage	
Generic Fie	eld III	:4!c//10*35x	Ορ	(Qualifier)	Repeating	c) Defir	ition & Usage Description	
Generic Fie Prese M	eld J nce B	:4!c//10*35x Qualifier JYR	Ор Р.Q.R	(Qualifier)	L (Name & Addres Repeating	Defir Defir Buyer	iition & Usage Description	
Generic Fil	eld IIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII	<u>44c//10*35x</u> Qualifier JYR EAG	Ор Р,Q,R Р,Q,R	(Qualifier)	Repeating	Defir	ition & Usage Description	
Generic Field	eld I B D S S	<u>Qualifier</u> JYR ELL	Ор Р,Q,R Р,Q,R Р,Q,R	Coustifier	Repeating	Defir Defir Buyer Delivering Agent Seller	ition & Usage Description	
Generic Fid Prese M OR OR O	nce Bi Di Al	<u>Qualifier</u> JYR EAG ELL LTE	Op P,Q,R P,Q,R P,Q,R S	(Qualifier)	Repeating	Defir Buyer Delivering Agent Seller Alternate ID	ition & Usage Description	
Generic Field	v eld nce Bl D Sl Al	Qualifier UYR EAG ELL LTE	Ор Р,Q,R Р,Q,R Р,Q,R S	(Qualifier)	Repeating	Defir Buyer Delivering Agent Seller Alternate ID	ition & Usage Description	
Generic Field	nce D SI Al	Qualifier JYR EAG ELL LTE	Op P,Q,R P,Q,R P,Q,R S	(Qualifier)	Repeating	Defir Buyer Delivering Agent Seller Alternate ID	ition & Usage Description	

- 3. Enter the description of the field in the **Description** text field.
- 4. For customizing a field, refer section Customize Field.
- 5. Add the Options for the field.
- 6. Make sure the Generic Field check box is selected.
- 7. Add the Qualifiers and map them to the Options of the field.
- 8. For a field existing already, the description and Options are automatically populated when the field is selected from the **Tag** list. But the Qualifiers have to be added, each time a field is added to the message format.
- Click OK. The field is added to the format as found in the External Format -SWIFT UI. Note that the field shows a unique collection of subfields of the options selected for a Qualifier.



External Format - Swift [MT100]							
Header Data Trailer							
🚍 🖽 隆 🕸 🏠 🥠 🦇							
Fiel	Field Name					Description	
🔤 🐼 95a			Swift	Field	Par	ty	
Q BUYR			Qualif	ïer	Bu	yer	
♦ BIC/B	EI		String		ΡF	ormat	
♦ Name_	_&_Addre	ess	String		QF	format	
♦ Data_3	Source_S	Scheme	String		R F	l Format	
🔶 Propri	etary_Co	de	String	String R		l Format	
🔶 Forma	tOption		Chara	Character			
Q DEAG			Qualif	Qualifier De		elivering Agent	
Q SELL			Qualif	Qualifier Se		eller	
Q ALTE			Qualif	Qualifier Alt		ternate ID	
			Cillit	Smift Field Applicant			
Swift Field Info (Gene	ric)						
Repeating 🖌	Presen	.Qualifier	Repeat	. Optio	ns	Description	
	М	BUYR		P,Q,R		Buyer	
Optional	OR	DEAG		P,Q,R		Delivering Agent	
	OR	SELL		P,Q,R		Seller	
						,	

Adding a Non-Generic Field

Adding Field Options

- 1. Click the **Add New Options** button in the **Create Field** or **Modify Field** dialog.
- 2. A new row is added in the options table. Enter the Option, its format, specification and description in the respective columns.
- 3. When a row is added, the option name by default is populated in the alphabetical order, considering the option name of the last row. For the first time, it is populated as A. This can be changed as required. To know how to enter the format, refer the section <u>Entering an Option Format</u>. To enter the specification, refer <u>Entering an Option Specification</u>.



4. For a generic field, the checkbox in the **Selected** column is not enabled at this point, as qualifiers are not yet added. Only on adding the qualifiers the column is enabled, so as to allow the mapping of the qualifier with the Option. See <u>Adding</u> <u>Qualifiers and Associating them with</u> Options.

🗟 Create Field								×	
Tag	ag Description								
95 🗸 🗸	5 Party Remove Customize								
Add New Opti	ons Forma	at	Specifi	ation		De	scription		
	:4!c//2!a	(Quali	ifier) (Countr	y Code)			-		
P	:4!c(//4!a2	2!a2 (Quali	ifier) (BIC/BI	EI)					
Πο	:4!c//4*35	ix (Oua	lifier) (Name	& Address)					
			(Qaamer) (Hamo a Haaross)						
Ceneric Field	Ceneric Field								
Presence	Qualifier	Options	Repeating		De	scription			
OR	DEAG	P,Q,R		Delivering Agent			^		
OR	SELL	P,Q,R		Seller				-	
			OK	Cancel					

See Also:

Adding a New Generic Field

Entering an Option Format

1. The following table shows how to specify the length of a field and the characters allowed while specifying the format for a field. A few examples are also given at the end of the table.

Restrictions on Length			Types of Characters Allowed			
nn	Maximum length	n	Digits only			
nn-nn	Minimum and	а	Alphabetic letters, upper case only			



	maxim	maximum length		Alphabetic letters (upper case) and digits only
			h	Hexadecimal letters A through F (upper case) and digits only
Nn!	Fixed length			Any character of the permitted character set upper and lower case
				Any character of the EDIFACT level A character set as defined in ISO 9735 upper case only
				Any character as defined by the Information Service
nn*nn	Maxim lines ti maxim	Maximum number of lines times maximum line length		Blank space
			d	Decimal format
Examples				
2n = up to 2 digit		s		
3!a		= always 3 let	ters	upper case only
4*35x = up to 4 l			of	up to 35 characters each
16-64h		= at least 16 a	nd	up to 64 hexadecimal digits

2. Use of square brackets [] around the format of a particular subfield indicates that the subfield is optional within that field. For example, in the following figure, format of option S is specified as :4!c/[8c]/4!c/2!a/30x. Here, the format corresponding to the sub-field Data Source Scheme is given as [8c], making the sub-field optional.



3. The formats within the brackets () should be treated as a single unit. In the following figure, note option P. The format is :4!c(//4!a2!a2!c[3!c]). The () brackets separates :4!c from the rest, thus implying only two sub-fields with formats 4!c and //4!a2!a2!c[3!c]. If the brackets were missed, the format //4!a2!a2!c[3!c] would not apply for a single sub-field BIC/BEI as in the figure. Instead it would imply four sub-fields with formats 4!a, 2!a, 2!c and 3!c.

Selected	Option	Format	Specification	Description	
	С	:4!c//2!a	(Qualifier) (Country Code)		
	Р	:41c(//41a21a21c[31c])	(Qualifier) (BIC/BEI)		
	Q	:4!c//4*35x	(Qualifier) (Name & Address)		
	R	:4!c/8c/34x	(Qualifier) (Data Source Scheme		- CC
	s	:4!c/[8c]/4!c/2!a/30x	(Qualifier) (Data Source Scheme		-

- 4. Refer <u>Mapping Formats with Specification (Sub-fields)</u> to know how to perform the same using the designer.
- 5. A generic field always starts with a colon (:), followed by a Qualifier of format 4!c followed by zero or more sub-fields. There is no such rule for a non-generic field.

See Also:

Adding a New Generic Field

Entering an Option Specification

The specification of a field should describe the field's format, and is given as a list of its constituent subfields. Each sub-field is separated from the next by using the () brackets. For example, the format of field 95C is :4!c//2!a. As per this format, there are 2 subfields, one with format 4!c and the next with 2!a. The specification should be entered to represent these two subfields namely, Qualifier and Country Code as (Qualifier)(Country Code).

Selected	Option	Format	Specification	Description
	С	:4!c//2!a	(Qualifier) (Country Code)	
	P	:4!c(//4!a2!a2	(Qualifier) (BIC/BEI)	
	Q	:4!c//4*35x	(Qualifier) (Name & Address)	
	R	:4!c/8c/34x	(Qualifier) (Data Source Scheme	
	s	:4!c/[8c]/4!c/	(Qualifier) (Data Source Scheme	

Consider the following case.

Format Pattern [A] SEPERATOR [B] SEPERATOR [C] where A, B, C represent formats of sub-fields.



Specification (Sub-Field1) (Sub-Field2) (Sub-Field2)

In this format pattern, the specification for subfields B and C are the same. ie, **Sub-Field2**. If this pattern is entered, only one instance of **Sub-Field2** will be created, though the format indicates 3 subfields, which is not correct. In order to avoid this, the specification of the subfields should be made distinct. (Here, the specification for subfields **B** and **C**). This is shown in the following example.

Example

Field	69a OPTION A
Format	:4!c//8!n/8!n
Specification	(Qualifier)(Date)(Date)
Format in Designer	:4!c//8!n/8!n
Specification in Designer	(Qualifier)(Start Date)(End Date)

Field 69a present in message format MT564 refers to Period. Its two subfield specifications Date are changed to imply their meaning as Start Date and End Date.

See Also:

Adding a New Generic Field

Removing Field Options

- Select the Option to be removed in the options table of the Create Field or Modify Field dialog.
- 2. Click the **Remove Selected Fields** button.


6	Create Fie	ld									×
Та	g	0	Description								
98	98 Date/Time Remove Customize										
	Selec.Re	move S	elected Fields			Specific	ation			Description	
	V	A	:4!c//8!n		(Qualifi	ier)(Date)					
		С	:4!c//8!n6!n	1	(Qualifi	er) (Date) (Time)				
		D	:4!c//4!c/[N]3!	(Qualifi	Qualifier) (Reference Date) (Sign					
	Generic Fi	ield					-				
	Pres	ence	Qualifier	Opt	tions	Repeating		De	escripti	ion	
1	1 O ACCW A A Account With Institution										
	OK Cancel										

The option is removed from the options table. If there is any qualifier associated with the removed option, in the case of a generic field, map it to the correct option or remove it.

See Also:

Adding a New Generic Field

Adding Qualifiers and Associating them with Options

- 1. Click the Add New Qualifier button 🖽 in the Create Field dialog.
- 2. A new row is added to the qualifiers table.



3	Create Fie	ld								×
Та	g	De	escription							
95	5	▼ P.	arty					Ren	nove Customize	
E										
	Selected	Option	Form	nat		Speci	ication		Description	
		С	:4!c//2!a		(Qual	ifier) (Count	ry Code)			
		Р	:4!c(//4!a	2!a2!	(Qual	ifier) (BIC/B	EI)			
		Q	:4!c//4*3	5x	(Qua	lifier) (Name	e & Address)		
	Generic Fie	eld								
	Prese	nce 🛛 🕻)ualifier	Optic	ons	Repeating		Dese	cription	
	OR	DEA	G	P,Q,R			Delivering	Agent		
	OR	SEL	L	P,Q,R			Seller			- 333
2	0	ALT	E	S		Ľ	Alternate II	0		
3	0						Currency o	f Accou	nt	-

- 3. Select the required **Qualifier** from the drop-down list as shown above. The **Description** is automatically populated on selecting the **Qualifier**.
- Select the Presence of the Qualifier among O (Optional), M (Mandatory), OR (OR). See <u>Specifying OR option for a Qualifier</u> to specify OR presence. Also select Repeating checkbox if the qualifier is repeating as per the specification.

	eneric Field					
	Presence	Qualifier	Options	Repeating	Description	
	OR	DEAG	P,Q,R		Delivering Agent	
	OR	SELL	P,Q,R		Seller	100
2	0	ALTE	S	Ľ	Alternate ID	
3	0 🔻	ACCT			Currency of Account	-
	0	OK Cancel				
	м					
	OR				·	



5. Map the options to the qualifier. To map, select the qualifier row. Select the options that apply to this qualifier by selecting the checkbox in the **Selected** column of the required options, as shown below.

3	Create Field										
Та	ia	De	escription								
9	5	▼ P.	arty					Rer	nove	Customize	
ĺ	▤ 🔠 ⇔	•									
	Selected (Option	Form	at		Spec	ification			escription	
	C C		:4!c//2!a		(Qual	ifier) (Cour	try Code)				
	P P		:4!c(//4!a	2!a2!	(Qual	ifier) (BIC/	BEI)				
	ি বি ব		:4!c//4*35	5×	(Qua	lifier) (Nam	e & Addres:	5)			
V	Í Generic Field	ł									
1.] = = = = = = = = = = = = = = = = = = =	•									
1	🔲 🗱										
-	Presend	e C	Qualifier	Optic	ons	Repeating		Des	cription		
	OR	DEA	G	P,Q,R			Delivering	Agent			
	OR	SEL	L	P,Q,R			Seller				335
2	0	ALT	E	S		Ľ	Alternate I	D			18 C
З	0	ACC	ст	P			Currency of	of Accou	nt		-
						OK	Cancel				

6. On selecting the options, they appear in the **Options** column in the qualifier table.

See Also:

Adding a New Generic Field



Specifying OR Option for a Qualifier

The OR option, allows grouping of qualifiers. This is useful when one of the many possible qualifiers can appear for a field option as per the specification. For example, field 95a allows one among a group of qualifiers BUYR, DEAG, DECU, etc.

Follow the steps given below to specify the OR option,

- Add a qualifier to the table as mentioned in the above section. Select one of the allowed qualifiers (in the OR group) from the drop-down list. Say, BUYR in our example. Specify its presence either as (M) Mandatory or (O) Optional as per the specification.
- 2. Add the next qualifier in the group, here DEAG, and specify its presence as OR from the drop-down list.

₽ G	Ceneric Field						
	Presence	Qualifier	Options	Repeating	Description		
1	M	BUYR	P,Q,R,T		Buyer		
	OR	DEAG	P,Q,R		Delivering Agent	200	
	OR	DECU	P,Q,R		Deliverer's Custodian		
2	0 🔻	ALTE	S		Alternate Identification	-	
	0						
	M		OK Cancel				
	OR						

- 3. Repeat the above step until all the qualifiers in the group have been added.
- 4. As per the above figure, one among the qualifiers BUYR, DEAG, DECU is mandatory, as specified for the first qualifier of the group.
- 5. Note that the qualifiers in the OR group are under the serial number 1 in the figure. The OR qualifiers are not assigned serial number for each row. Only the qualifier added outside the group, i.e., with an O or M presence is assigned the next serial number.

See Also:

Adding a Non-Generic Field Adding Copy of Fields Adding a SWIFT Sequence Adding validations for a sub-field



Adding a Non-Generic Field

A Non-Generic field, unlike a generic field, is a discrete data item used for one purpose only. To add a non-generic field to a message format, follow the steps given below.

- 1. Click the Add New SWIFT Field button in the toolbar of the External Format SWIFT UI. The Create Field dialog appears.
- 2. Enter the field tag in the **Tag** text field and press **Enter**. The toolbar buttons for the options table are now enabled.

🗟 Create Field 🔀						
Tag		De	escription			
23		-		Rei	move Customize	
Ľ		->				
	Selected	Option	Format	Specification	Description	
			16×	(Identification)	Further Identification	
		E	4!c[/30x]	(Instruction Code)(Additional Info	Instruction Code	
	~	G	4!c[/4!c]	(Function) (Subfunction)	Function of the Messa	
]	Generic Fi	eld atory ating				
				OK Cancel		

- 3. Enter the description of the field in the **Description** text field.
- 4. Add the Options for the field.
- 5. Uncheck the **Generic Field** check box.
- 6. The lower panel having the field properties appears now. Select the **Mandatory** check box if the field is mandatory and select the **Repeating** check box if the field is repeating.



- 7. Select the required options by selecting the check box in the **Selected** column of the options table. Note that this column is enabled only on step 5.
- 8. For a field existing already, the description and Options are automatically populated when the field is selected from the **Tag** list. Note that the required options have to be selected and the properties (**Mandatory** and **Repeating**) have to be set, each time a field is added to a message format.
- Click OK. The field is added to the format as found in the External Format -SWIFT UI. The field shows a unique collection of subfields of the options selected.

Exte	External Format - Swift [MT564] 🔗						
He	Header Data Trailer						
	i 🖽 📝 💥	û 🖟 🗇 û					
	Field	d Name		Data Type	Description		
	🔁 A			Swift Seq	General Information	-	
	📿 20C			Swift Field	Reference	200	
	🔯 23G			Swift Field	Function of the Message		
	🔶 Functio	n		String	G Format		
	🔶 Subfun	ction		String	G Format		
	📿 22F			Swift Field	Indicator	-	
[S\	wift Field Info (Non-G	eneric)					
	Repeating	Option	F	ormat	Specification		
G 4!c[/4!c] (Fur				(Function) (Subfunction)			
	Optional						

See Also:

Specifying Field Definition and Usage Mapping Formats with Specification (Sub-fields) Representing Complex Formats in Designer Adding a new Generic Field Adding Copy of Fields Adding a SWIFT Sequence



Specifying Field Definition and Usage

Definition & Usage

A field's definition and usage can be specified by clicking the bettind a bage of field or Modify Field dialog. For example field definition and usage of field '23G' in MT519 can be specified as shown below.

ĺ	Definition & Usage	×
	Field Definition	
	This field identifies the function of the message.	
	Usage Rules	
	To cancel a previously sent message, Function is CANC. The reference in the linkages sequence must contain the Sender's reference of the message to be cancelled. A copy of at least the mandatory fields of the message to be cancelled must be present; optional fields need not be present for SWIFT validation.	
	OK Cancel	

See Also:

Adding a new Generic Field Adding a Non-Generic Field

Mapping Formats with Specification (Sub-fields)

There should be a one-to-one correspondence between the format and the specification mentioned for a field. Only then, Designer will be able to interpret the sub-fields and their individual formats. The following steps ensure that Designer maps the format and specification of sub-fields correctly. If necessary, formats can be merged or split-up as explained below.

 Select the required row in the options table in the Create Field or Modify Field dialog and click the Map format with Specification button to bring out the Fields Format dialog.



1	⊞ 🖉 ⇔					
Selected	Option	Format	Specification			
	С	(4!c//2!a	(Qualifier) (Country Code)			
	P	:4!c(//4!a2!a2!c[3!	(Qualifier) (BIC/BEI)			
	Q	:4!d//4*35x	(Qualifier) (Name & Address)			
	R	:4!d/8d/34x	(Qualifier) (Data Source Scheme) (Proprieta			
	s	:4!c/[8c]/4!c/2!a/3	(Qualifier) (Data Source Scheme) (Type of			
	U	:4!d//3*35x	(Qualifier) (Name)			
	v	:4!c//10*35x	(Qualified) (Name & Address)			

2. The selected row has a simple format and specification. Hence there is no ambiguity for Designer in mapping the format with the specification. Designer shows the correct mapping in this case

6	🗟 Field Formats 🛛 🔀						
	Format	Specification					
	4!c	Qualifier					
	2!a	Country_Code					
		QK Cancel					

3. But in complex cases, where there is ambiguity in resolving the format and specification of sub-fields, Designer is clueless and the mapping needs to be done by the user. Consider the following case.

P :41c//41a21a21c[31c] (Qualifier)(BIC/BEI)	
---	--

4. The Field Formats dialog for this case shows



S Field	Formats	×
	Format	Specification
	4!c	Qualifier
	4!a	BIC/BEI
	2!a	
	2!c	
	[3!c]	
	[OK Cancel

- 5. Note that there is no one-to-one correspondence between the Format and the Specification. In the above figure, all the formats that have no specification actually belong to BIC/BEI sub-field. Hence in order to correct the mapping, those formats have to be merged for the specification BIC/BEI.
- 6. Select the rows to be merged and click the **Merge Selected Formats** button.

🗟 Field	l Formats	×
	*	
M	erge Selected Formats	Specification
	4!c	Qualifier
	4!a	BIC/BEI
	2!a	
	2!c	
	[3!c]	
	[OK Cancel

7. The mapping is now correct. Click OK.



Formats	X
E	
Format	Specification
4!c	Qualifier
4!a2!a2!c[3!c]	BIC/BEI
L	OK Cancel
	Formats Format 41c 41a21a21c[31c]

8. The format of option P in options table now looks like

Selected	Option	Format	Specification
	С	(4!c//2!a	(Qualifier) (Country Code)
	P	:4!c(//4!a2!a2!c[3!c])	(Qualifier) (BIC/BEI)
	Q	(4!c//4*35x	(Qualifier) (Name & Address)
	R	:4!c/8c/34x	(Qualifier) (Data Source Scheme) (

- 9. Note the () brackets added in the format after merging. These brackets can also be entered in the format directly, without going through the **Fields Format** dialog.
- 10. The reverse is also possible in the **Fields Format** dialog. i.e., formats can be split up.

6) Field	Formats		×
	1			
		Format	Specification	
		4!c	Qualifier	
		8!n6!n	Date	
			Time	
		[OK Cancel	

- 11. Note that the format is missing for Time.
- 12. Select the row to be split-up and click the **Split Selected Format** button.



🗟 Field	Formats	×
E	Split Selected Form	at
		Specification
	4!c	Qualifier
	8!n6!n	Date
		Time
	[OK Cancel

13. The format now looks correct as below. Click OK.

3	Field Formats	2	<
	Format	Specification	
	4!c	Qualifier	
	8!n	Date	
	6!n	Time	
OK Cancel			

Use of brackets () around a set of (two or more) formats indicates that they should be treated as a single unit. Consider the format: 4!c(//4!a2!a2!c[3!c]). The () brackets separates : 4!c from the rest, thus implying only two sub-fields with formats 4!c and //4!a2!a2!c[3!c]. If the brackets were missed, the format //4!a2!a2!c[3!c] would not apply for a single sub-field BIC/BEI as in the figure. Instead it would imply four sub-fields with formats 4!a, 2!a, 2!c and 3!c.

See Also:

Adding a new Generic Field Adding a Non-Generic Field Representing Complex Formats in Designer

Representing Complex Formats in Designer

Some field formats mentioned in the SWIFT specification need to be changed to represent them in Designer. Those formats are explained below. Note that while



changing the format, the corresponding specification should also be changed to reflect the format as shown in the following cases.

Conventions

A, B refer to independent sub-fields.
(e.g.) in the format ([ISIN1!e12!c])CRLF[4*35x]
A is [ISIN1!e12!c] and B is [4*35x]

A1, **A2** refer to parts of a sub-field. (e.g.) if **A** is [/1!a][/34x] then **A1** is [/1!a] and **A2** is [/34x]

SEP means SEPERATOR.

Format Pattern	[A] SEP [B]
Representation	A [SEP B] B
in Designer	

This format implies that,

- 1. Either **A** and **B** are present or only **A** is present.
- 2. Only **B** is present.

Here the separator does not belong to (cannot be associated with) either of the two formats (**A** and **B**). The separator appears only if both are present. In the grammar **[A] SEP [B]** there is no way to represent such a requirement without ambiguity. Consider the formats [A SEP][B] and [A][SEP B] – they do not represent the fact that separator should appear only if both **A** and **B** are present.

Since the grammar cannot convey the meaning correctly, the SWIFT specification provides additional information as part of the description or clarifies it elsewhere in the document. Hence such information should be correctly correlated with the format in Designer, so that the application interprets the format, the way it should.

Note

The parser tries out the first format and if it fails, tries the second (and so on). Because of this, the order of the formats (that are ORed) is important and should always be maintained. In general, the one with more number of fields should appear first.

Example



Field	35B
Format	([ISIN1!e12!c])CRLF[4*35x]
Specification	(Identification Of Security) (Description Of Security)
Format in Designer	(ISIN1!e12!c)([CRLF4*35x]) 4*35x
Specification in Designer	(Identification Of Security) (Description Of Security) (Description Of Security)

Note that the field specification is also changed to match the format.

Present in Message Formats: MT541, MT543, MT524, MT521, MT531, MT520, MT522, MT523, and MT530

Format Pattern	[A1] [A2] SEP [B]
Representation	[A1 [A2] SEP] B [A2 SEP] B
in Designer	

This format implies that

- 1. Either A1, A2 and B are present, or A1 and B are present, or only B is present.
- 2. **A2** and **B** are present, or only **B** is present.

In this format pattern the separator does not belong to either of the two formats (**A** and **B**). Also format **A** is further divided into parts **A1** and **A2**. The separator appears only if **A1** or **A2** are present or both **A1** and **A2** are present. If only format **B** is present the separator does not appear. The order of the formats is important and should always be maintained.



Example

Field	82a – OPTION A
Format	[/1!a][/34x]CRLF4!a2!a2!c[3!c]
Specification	(Party Identifier)(BIC)
Format in	[/1!a[/34x]CRLF])(4!a2!a2!c[3!c])
Designer	([/34xCRLF])(4!a2!a2!c[3!c])
Specification in Designer	(Party Identifier)(BIC) (Party Identifier)(BIC)

Present in Message Formats: MT521, MT531, MT520, MT522, MT523, MT530

Other Fields Having Similar Pattern:

- 82a Options A, D 83a - Options A, D 88a - Options A, D 87a - Options A, D 85a - Options A, D 53a - Options A, D 54a - Options A, D 57a - Options A, D 58a - Options A, D 52a - Options A, D 56a - Options A, D 51a - Options A, D 42a - Options A, D 88D Format Pattern [A1] [A2] [SEP B] Representation [A1[A2]SEP]B | A1[A2] | [A2 SEP] B | A2 in Designer This format implies that A1, A2 and B are present, or A1 and B are present, or only B is present.
 - A1 and A2 are present, or only A1 is present.
 - A2 and B are present, or only B is present.
 - Only A2 is present.



In this format pattern the separator does not belong to either of the two formats (**A** and **B**). In this case, format **A** is further divided into two parts **A1** and **A2**. The separator appears only if either one or both of **A1** and **A2** is/are present and format **B** is also present. Presence of format **B** is essential for the separator to appear. The order of the formats is important and should always be maintained.

Example

Field	82a – OPTION B
Format	([/1!a][/34x])[CRLF35x]
Specification	(Party Identifier) (Location)
Format in Designer	([/1!a[/34x]CRLF])35x (/1!a[/34x]) ([/34xCRLF])35x /34x
Specification	(Party Identifier) (Location) (Party Identifier)
in Designer	(Party Identifier) (Location) (Party Identifier)

Present in Message Formats: MT521, MT531, MT520, MT522, MT523, MT530

Other Fields Having Similar Pattern:

82a - Option B
88a - Option B
87a - Option B
53a - Option B
54a - Option B
57a - Option B
52a - Option B

Format Pattern A SEP B where A is of the format nooflines*maxlinelength (Maximum number of lines times maximum line length).

Representation	(maxlinelength) SEP B
in Designer	(2*maxlinelength) SEP B
	(maxnooflines*maxlinelength) SEP B

This format implies that

A minimum of one line is present in format **A** along with format **B**.



Number of lines that range between 1 and maximum number possible is present in format \bf{A} along with format \bf{B} .

Maximum number of lines that is possible is present in format **A** along with format **B**.

In this format pattern, format **A** can have multiple lines in its data, which are separated by CRLF. Format **A** and Format B are also separated by CRLF. In order to differentiate between the data for format **A** and data for format **B** we have followed the above conversion pattern. In this case, format **A** is represented as a combination of the number of possible lines and the maximum length per line. The order of the formats is important and should always be maintained.

Example

Field	41a – OPTION D
Format	(4*35x)CRLF14x
Specification	(Name & Address)(Code)
Format in	(35x)CRLF14x (2*35x)CRLF14x (3*35x)CRLF14x
Designer	(4*35x)CRLF14x
Specification	(Name & Address)(Code) (Name & Address)(Code)
in Designer	(Name & Address)(Code) (Name & Address)(Code)

Present in Message Format: MT710

See Also:

Adding a new Generic Field Adding a Non-Generic Field Mapping Formats with Specification (Sub-fields)



Adding Copy of Fields

In some SWIFT messages a set of fields need to be treated as single entity. For e.g. in common group messages (MTnxx), a copy of the fields that occurred in the original message may occur at the end. The entire set should be treated as a single field. To support this we need to add a separate field 'Copy of Fields'.

- 1. To add 'Copy of Fields' select the button in the toolbar.
- 2. The dialog shown below will be displayed.

Copy of F	ields 🛛 🔀
Name	CopyOfFields
Description	Copy of at least the Mandatory Fields of the Original Message
Mandatory	
	OK Cancel Help

3. Specify the properties for 'Copy of Fields' in the dialog. Select 'OK' to add it.



External Format - SWIFT [MT543]						
Header Data Trailer						
🔚 🖽 D 🕻 🕌 👔 🦺	. 🦇 🔿 😫		P			
Field Name	Туре	Enabled	Description			
♦ Alternate_ID	String		S Format			
⊖ * F	Swift Sequence	Ľ	Other Parties			
📿 95a	Swift Field	V.	Party			
🕰 97A	Swift Field	Ľ	Account			
🕰 70a	Swift Field	Ľ	Narrative			
🕰 20C	Swift Field	Ľ	Reference			
■ ² CopyOfFields	String		Copy of at least the 👘 👻			
Optional V Solutional						

From the above diagram it can be seen that the 'Copy of Fields' gets added as the last field in the message with the occurrence property.

Note:

The 'Copy of Fields' of fields should be the last field in the message. It should be a top-level field. It should not be nested within a sequence.

See Also:

Adding a SWIFT Sequence Adding a SWIFT Field Updating a SWIFT Field Removing a SWIFT Field



Updating a SWIFT Field

1. Select the field to be modified in the **External Format - SWIFT** UI and click the **Modify SWIFT Field** button in the toolbar.

External Fo	ormat - Swift [MT564]			8
Header	Data Trailer			
E) 🖾 🔿 🦺 😭 🖾 (
	Modify Swift Field	Data Type	Description	
🔁 A	i i	Swift Seq	General Information	•
	200	Swift Field	Reference	200
	2 3G	Swift Field	Function of the Message	
	Function	String	G Format	
	Subfunction	String	G Format	
2	22F	Swift Field	Indicator	
	🧶 CAEV	Qualifier	Corporate Action Event Indicator	
	Data_Source_Scheme	String	F Format	
	♦ Indicator	String	F Format	
	🧶 CAMV	Qualifier	Mandatory/Voluntary Indicator	
	A Data Source Sebera	Otrina	E Format	•

2. The **Modify Field** dialog appears with the selected field in the **Tag** drop-down box.



8 1	lodify Fie	ld							×
Тар	3	D	escription						
22		- I	ndicator					Ren	nove Customize
2	3 🎦 🔇	>							
	Selected	Option	Format	t		Specific	ation		Description
		F	:4!c/[8c]/4!	с	(Qualifi	er) (Data So	urce Sch	eme)	Indicator
		G	:4!c/[8c]/4!	с	(Qualifi	er) (Data So	urce Sch	eme)	
		н	:4!c//4!c		(Qualifi	er) (Indicato	r)		Indicator
ľ	Ceneric Field								
	Prese	ence	Qualifier	Ор	tions	Repeating		De	escription
1	M	CA	λEV	F			Corporat	e Action	Event Indicator
2	M	CA	MV	F			Mandator	ry/Volun	tary Indicator
	OK Cancel								

- The options available for the field are populated in the options table, with the apt options selected. Add any missing option if needed, refer <u>Adding Field Options</u>. Select the required options.
- 4. For a generic field, the **Generic Field** check box appears checked and the qualifiers are populated in the qualifiers table with the properties set. Add qualifiers further if needed. Refer <u>Adding Qualifiers and Associating them to the Options</u>.
- 5. For a non-generic field, the dialog looks as below. The **Generic Field** check box appears unchecked and the properties **Mandatory** and **Repeating** are checked or unchecked as set previously. Modify the properties if necessary.



3	Modify Fie	ld			×
Т	ag	De	scription		
2	3	-		Ren	nove Customize
	🗄 🎦 🔇				
	Selected	Option	Format	Specification	Description
			16×	(Identification)	Further Identification
		E	4!c[/30x]	(Instruction Code)(Additional Info	Instruction Code
		G	4!c[/4!c]	(Function) (Subfunction)	Function of the Messa
	Generic Fi	eld story sting			
				OK Cancel	

- 6. Click the **Remove** button to remove the selected field from the **Tag** list, subsequently from the **External Format SWIFT** UI.
- 7. To change the suffix, refer the section <u>Customize Field</u>.

See Also:

Adding a SWIFT Field Adding a SWIFT Sequence Removing a SWIFT Field



Customize Field

Consider the message format MT101.

Status	Тад	Field Name	Content/Options	No.
Mandat	ory S	equence A General Inform	ation	
М	20	Sender's Reference	16x	1
0	21R	Customer Specified Reference	16x	2
М	28D	Message Index/Total	5n/5n	3
0	50a	Instructing Party	C or L	4
0	50a	Ordering Customer	G or H	5
0	52a	Account Servicing Institution	A or C	6

.....

.....

Note that the field 50a appears twice consequently. When such a data format is entered in the designer and validated, the designer shows an error that the field is duplicated. Hence in order to avoid this, the suffix **a** needs to be changed. Anyhow, this will not affect the format of the field. To change the suffix:

1. Click the Add New SWIFT Field button in the External Format - SWIFT UI to bring the Create Field dialog. Or select the row to change the suffix (if the field is already added) and click the Modify SWIFT Field button to bring the Modify Field dialog.



Ex	ternal Format - Swift [MT101]		
ĺ	Header Data Trailer		
	🚍 🖽 👰 🏝 👔 🦊 🖛 📫		
	Field Name	Data Type	Description
	🔁 🗛 Modify Swift Field	Swift Seq	General Information
	📿 20	Swift Field	Sender's Reference
	📿 21R	Swift Field	Customer Specified Reference
	🖓 11S	Swift Field	
	📿 28D	Swift Field	Message Index/Total
	📿 50a	Swift Field	Instructing Party
	📿 50a	Swift Field	Ordering Customer
	🖓 52a	Swift Field	Account Servicing Institution

2. In the **Create Field/Modify Field** dialog that appears, click the **Customize** button.

8) Mo	dily Fie	ld				X
Tag 50	87		escription		Remove	
s	elected	Option	Format	Specification	Description	
			4*35x	(Name & Address)	Applicant	•
		A	([/34x])(CRLF	(Account)(BIC/BEI)	Creditor	200
		C	(41a21a21c[31c])	(BEI)	Instructing Party	
		G	/34x(CRLF4!a	(Account) (BEI)	Ordening Customer	
	N	н	/34x(CRLF4*3	(Account)(Name & Address)	Ordering Customer	-

3. In the **Customize Field** dialog that appears enter the suffix and click OK.

🗟 Cust	omize Field	×
2	Field Suffix b	
	OK Cancel	_

4. Click OK in the **Create Field/Modify Field** dialog. Now the **External Format -SWIFT** UI shows the field with the suffix entered.



Field Name	Data Type	Description	
🔁 A	Swift Seq	General Information	•
📿 20	Swift Field	Sender's Reference	
📿 21R	Swift Field	Customer Specified Reference	
📿 11S	Swift Field		
📿 28D	Swift Field	Message Index/Total	
📿 50a	Swift Field	Instructing Party	
📿 50b	Swift Field	Ordering Customer	
📿 52a	Swift Field	Account Servicing Institution	•

See Also:

Adding a new Generic Field Adding a Non-Generic Field Removing a SWIFT Field

Removing a SWIFT Field

 Select the fields to be removed in the External Format - SWIFT UI and click the Remove Selected Fields button in the toolbar. The fields are removed from the format.

External Format - Swift [MT564]			
Header Data Trailer			1
ĥa 🔠 📓 🌺 🏠 🦊 🖨 📫			
Fit Remove Selected Fit	elds <mark>ita Type</mark>	Description	
🔁 A	Swift Seq	General Information	
🛛 📿 20C	Swift Field	Reference	
📿 11S	Swift Field		
📿 22F	Swift Field	Indicator	
📿 98a	Swift Field	Date/Time	
📿 25D	Swift Field	Status Code	
🛛 📿 23G	Swift Field	Function of the Message	
🔁 A1	Swift Seq	Linkages	
22F	Swift Field	Indicator	
📿 13A	Swift Field	Number Identification	
Galance	emite ciala	Deference	-

- 2. Sequences can also be removed by clicking this button. But sub-fields cannot be removed.
- 3. A field can also be removed by clicking the **Remove** button in the **Create Field** or **Modify Field** dialog.



🗟 Create Field				×
Tag	Description			
95 🗸 🗸	Party	Remove	Customize	

This removes the field from the Tag list.

See Also:

Adding a SWIFT Field Updating a SWIFT Field Adding a SWIFT Sequence

Adding validations for a sub-field

While adding a swift field you can also add validations for the sub-fields of the swift field. The validation types that are currently supported are

CODE Time Offset BIC C05 DATE T14 Decimal T26 Currency Code Country Code and Party Identification

1. Select a swift sub field in Swift External Format UI. In the 'Swift Sub Field Info' properties panel click the 'Validations' button.



🤿 23G		Swift Field	V.	Fu
🔷 🔶 Functio	n	String		G
♦ ² Subfun	ction	String		G
🟹 98a		Swift Field	¥	Da
O? PREP		Qualifier	Ľ	Pr 💌
-Swift Sub Field Info	Format	Optional	Vali	idations
-Swift Sub Field Info	Format 4!c	Optional	Vali	dations

2. The Swift Field Validations dialog will be displayed.

🗟 Swift Field Validat	ions - Indicator				
🖽 🎦 🕆 🦺					
Туре	Error Code	Applies To			
Qualifiers	Field Options N	ull Field			
	F	▼			
ACCT					
ACCW					
Comment					
	OK Cancel	Help			

- 3. In the top tool bar select the \blacksquare button to add a new validation.
- 4. The default type will be 'CODE'. Click the 'Type' column. The list of validation types will be displayed. Select the appropriate validation type.



	Туре	Error Code	Applies To
	CODE 💌		Options(F)
	CODE		
	Т26		
	T14		
	DATE		
Qu	Currency Code	Field Options	Null Field

Note:

For the 'Format Option' sub field the validation button will not be enabled.

If a sub-field has validations the text of the validations button will be 'Red' in color.

Validations

If a sub-field does not have validation the text will be in normal color.

Validations

You can click the $(\widehat{\mathbf{U}}_{i}, (\widehat{\mathbf{U}}_{i})$ to move validation(s) up/down.

See Also:

Specifying properties common for all validations Removing validations from a sub field Adding a SWIFT Field

Specifying properties common for all validations

The properties that can be specified for a validation are

Туре
Error Code
Field Options
Qualifiers (Applicable only for generic fields)
Null Field
Comment
Codes (Applicable only if 'Type' is 'CODE')
Date Format (Applicable only if 'Type' is 'DATE')
Sign Field (Applicable only if 'Type' is T14)
Currency Field (Applicable only if 'Type' is Decimal)
Formula (Applicable only if 'Type' is Formula)
Party Identification Codes (Applicable only if 'Type' is Party Identification)



Specifying Error Code

Specify the error code in the 'Error Code' column.

Туре	Error Code	Applies To
CODE	K22	Options(F)

Specifying Field Options

In the field options list only those options that are applicable to the selected sub field will be displayed. By default all the displayed options will be selected when you add a validation. You can deselect among the option(s) that are not applicable for the validation.

Please note that at least one field option must be selected for a validation.

Field Options			
	ons	ons	ons

Specifying Qualifiers

This property is applicable only in case of generic fields. Only those qualifiers that contain the applicable field options will be displayed. Select the necessary qualifiers. Please note that at least one qualifier must be selected for a validation.



Specifying Null Field

This property specifies the field that should be 'null' for the validation to be applied. In the 'Null Field' combo box sub-fields of the swift field will be displayed. Note that the current field (i.e.) sub field for which validation is being applied will not be displayed. Similarly the 'Format Option' field will also not be displayed. You can select the appropriate field from the list.

This is an optional property.



Null Field	
Data_Source_Scheme	▼

Specifying Comment

Comment for the validation can be specified in the comment text area. This is an optional property.

Comment

```
If Qualifier is SFRE and Data Source Scheme is not present, Indicator must contain one of the codes listed below.
```

See Also:

Adding validations for a sub-field Adding Code validation

Adding Code validation

Code validation is applicable in cases where a field's value should be one of a set of predefined values. The predefined values can be specified as codes.

- 1. Add a new validation.
- 2. Select 'Type' as 'CODE' in the 'Type' column.
- 3. Specify 'Error Code', 'Field Options', 'Qualifiers', 'Null Field' and 'Comment' properties as specified earlier.

Specifying Codes

The list of codes for the sub field is to be added to the 'Codes' Table. Note that at least one code should be added for a code validation.

Codes						
🔒 📰 🛍 🕈 🖶						
Code	Detail Name	Description				

Press the 🕒 button to add a new code. Enter the actual code under 'Code' column. Enter the detailed name and description under 'Detail Name' and 'Description' columns.



For example in MT519 sub-field 'Function' of field 23G must contain the following codes

CANC and NEWM

They can be added as shown below

Code	Detail Name	Description	
CANC	Cancellation	This is a request to cancel a previously se	
NEWM	New	This is a new modification of registration	

Pasting Codes From Clipboard

You can also use the is button to paste a set of codes from clipboard. Copy a set of codes along with their detail names and description from the swift standard documentation to an application like Excel. Copy the text from there to clipboard. Now click the is button. The codes will be pasted.

Note:

The code, detailed name and description should be separated either by spaces or tabs. Only then the paste operation will paste the codes correctly. In cases where the detailed name itself is of two words separated by space the second word will be copied to the description column. In such cases you have to manually copy the second word back to detail name column.

Code	Detail Name	Description
CANC	Cancellation	This is a request to cancel a previously se
NEWM	New	This is a new modification of registration

Removing Codes

You can use the $\overset{(\Box)}{=}$ button to remove an existing code.

Note:

You can use the (\mathcal{D}) and (\mathcal{D}) buttons to move code(s) up/down.

See Also:

Specifying properties common for all validations Adding validations for a sub-field Removing validations from a sub field



Adding T26 Validation

T26 validation is applicable in cases where a field's value should not start or end with a slash '/' and not contain two consecutive slashes '//'.

- 1. Add a new validation.
- 2. Select 'Type' as 'T26' in the 'Type' column.
- 3. The error code will be automatically set as 'T26'. You need not change it.
- 4. Specify the qualifiers, field options, null field and comment properties as specified earlier.
- 5. The description and usage for this validation type will be displayed at the bottom.

T26 Validation Pattern The data content of this field may not contain a / as its first character, nor a '/ as its last character; nor may it contain // (two consecutive slashes) anywhere within its contents. This check applies to fields: 20 and 20C 21, 21A, 21F, 21G, 21P and 21R

See Also:

Specifying properties common for all validations Adding validations for a sub-field Removing validations from a sub field

Adding T14 Validation

This validation is applicable for Amount\Rate\Balance\Number fields whose sign must be present when their value is non-zero.

- 1. Add a new validation.
- 2. Select 'Type' as 'T14' in the 'Type' column.
- 3. The error code will be automatically set as 'T14'. You need not change it.
- 4. Specify the qualifiers, field options, null field and comment properties as specified earlier.
- 5. From the Sign Field list-box displayed, select Sign.



In MT514 sub-field 'Rate' in field 92A has a validation that when Sign is present, Rate must not be zero. For this field, T14 validation can be added as shown below.

Sign Field			
Sign 🔻			
-			

See Also:

Specifying properties common for all validations Adding validations for a sub-field Removing validations from a sub field

Adding Date Validation

Date validations are applicable for Date/Time fields, whose value should be expressed, in a particular format (e.g. YYYYMMDD).

- 1. Add a new validation.
- 2. Select 'Type' as 'DATE' in the 'Type' column.
- 3. Specify the error code, qualifiers, field options, null field and comment properties as specified earlier.

Specifying Date Format

Specify the date format for the validation in the 'Format' combo box. Please note that this is a mandatory property.

In MT519 sub-field 'Date' in field 98a should be a valid date expressed as 'YYYYMMDD'. For this field 'DATE' validation can be added and format specified as shown below.

Date Validation Pattern		
Format		
ууууммаа	•	

See Also:

Specifying properties common for all validations Adding validations for a sub-field Removing validations from a sub field



Adding Currency Code Validation

This validation is to verify that the currency code specified for a field is a valid ISO 4217 currency code.

- 1. Add a new validation.
- 2. Select 'Type' as 'Currency Code' in the 'Type' column.
- 3. The error code will be automatically set as 'T52'. You need not change it.
- 4. Specify the qualifiers, field options, null field and comment properties as specified earlier.
- 5. The description and usage for this validation type will be displayed at the bottom.

See Also:

Specifying properties common for all validations Adding validations for a sub-field Removing validations from a sub field

Adding Country Code Validation

This validation is to verify that the country code specified for a field is a valid ISO country code.

- 1. Add a new validation.
- 2. Select 'Type' as 'Country Code' in the 'Type' column.
- 3. The error code will be automatically set as 'T73'. You need not change it.
- 4. Specify the qualifiers, field options, null field and comment properties as specified earlier.

The description and usage for this validation type will be displayed at the bottom.

- Country Code Validation Pattern ------

Country Code must be a valid ISO country code (Error code(s): T73).



See Also:

Specifying properties common for all validations Adding validations for a sub-field Removing validations from a sub field

Adding Time Offset Validation

Time Offset validations are applicable for Time fields, whose value should be expressed, in a particular format HHMM and whose value should be within a particular range.

- 1. Add a new validation.
- 2. Select 'Type' as 'Time Offset' in the 'Type' column.
- 3. The error code will be automatically set as 'T16'. You need not change it.
- 4. Specify the qualifiers, field options, null field and comment properties as specified earlier.

The description and usage for this validation type will be displayed at the bottom.

------ Time Offset Validation Pattern

Time offset is expressed as 'HHMM', where the hour component, ie, 'HH', must be in the range of 00 through 13, and the minute component, ie, 'MM' must be in the range of 00 through 59. Any 'HH' or 'MM' component outside of these range checks will be disallowed (Error code(s): T16).

See Also:

nt

Specifying properties common for all validations Adding validations for a sub-field Removing validations from a sub field

Adding BIC validation

This validation is to verify that the BIC/BEI specified for a field is a SWIFT registered address, either connected or not-connected.

- 1. Add a new validation.
- 2. Select 'Type' as 'BIC' in the 'Type' column.



- 3. The error codes will be automatically set as 'T27, T28, T29, T45'. You need not change it.
- 4. Specify the qualifiers, field options, null field and comment properties as specified earlier.

The description and usage for this validation type will be displayed at the bottom.

- BIC Validation Pattern -

The BIC/BEI must be a SWIFT registered address, either connected or non-connected (Error code(s): T27, T28, T29, T45).

See Also:

Specifying properties common for all validations Adding validations for a sub-field Removing validations from a sub field



Adding C05 validation

This validation is to verify that the BIC specified for a field is not a BEI, ie must not be of subtype BEID, MCCO, TESP or TRCO

- 1. Add a new validation.
- 2. Select 'Type' as 'C05' in the 'Type' column.
- 3. The error code will be automatically set as 'CO5'. You need not change it.
- 4. Specify the qualifiers, field options, null field and comment properties as specified earlier.

The description and usage for this validation type will be displayed at the bottom.

```
BIC - No BEI Validation Pattern
```

The BIC must not be a BEI, ie must not be of subtype BEID, MCCO, TESP or TRCO (Error code(s): C05).

See Also:

Specifying properties common for all validations Adding validations for a sub-field Removing validations from a sub field

Adding Decimal Validation

This validation is applicable for 'Amount' field to validate that the number of digits following the comma must not exceed the maximum allowed for the specified currency.

- 1. Add a new validation.
- 2. Select 'Type' as 'Decimal' in the 'Type' column.
- 3. The error code will be automatically set as 'CO3'. You need not change it.
- 4. Specify the qualifiers, field options, null field and comment properties as specified earlier.
- 5. From the Currency Field list-box displayed, select Currency_Code.


In MT567, sub-field 'Amount' in field 19A has a validation that the number of digits following the comma must not exceed the maximum allowed for the specified currency. For this field, Decimal validation can be added as shown below.

	Decimal Validation Pattern
Currency Field	
Currency_Code 💌	

See Also:

Specifying properties common for all validations Adding validations for a sub-field Removing validations from a sub field

Adding Party Identification Validation

Party Identification is applicable in cases where a party can be identified using a set of predefined groups. The predefined groups can be specified as codes.

- 1. Add a new validation.
- 2. Select 'Type' as 'Party Identification' in the 'Type' column.
- 3. The error code will be automatically set as 'T78'. You need not change it.
- 4. Specify 'Field Options', 'Null Field' and 'Comment' properties as specified earlier.

Specifying Party Identification Codes

The list of codes for the sub field is listed in the 'Party Identification Codes' Table. You have the option to set a code as New Group and you can also make a code Mandatory by checking the required check-box as shown below:

	Party Identification Codes				
E	😑 🕈 🕹				
	New Group	Code	Mandatory	Format	
		NAME	2	34×	followed by the n 📥
	Ľ	ABIC	Ľ	4!a2!a2!c3!c 4!a2!a2!c UKWN	followed by the B
	Ľ	CITY		35×	followed by the c
		AGOT		a	<u>e u u u u</u>



Removing Codes

You can use the $\frac{1}{2}$ button to remove an existing Party Identification code. Note that atleast one code should be present for a Party Identification Code validation.

Note:

You can use the (2) and (2) buttons to move code(s) up/down.

See Also:

Specifying properties common for all validations Adding validations for a sub-field Removing validations from a sub field

Removing Validations from a Sub Field

- 1. Select the swift sub field and click the Validations button.
- 2. In the validations table of the Swift Field Validations dialog box, select the validation(s) that are to be removed.
- 3. Click the 'Remove Validation(s)' button $\overset{}{i}{\mathbf{m}}$ ' to remove the selected validation(s).

See Also:

Adding validations for a sub-field

SWIFT External Message UI

The following properties can be specified in the SWIFT External Message UI.

Format Name. This refers to name of the external format.

(MT543ExternalMessage)

Version.

Standard Name. This refers to the actual name of the SWIFT message. (MT543) Standard Version. This refers to the SRG version based on which the message was created. (SRG 2005)

Detailed Name. This refers to the detailed name of the SWIFT message. (Deliver Against Payment)



xtemal - SWIFT [!	MT543Message]	<u> </u>
-Format Details-		
External Format	SWIFT	
External Format		
Name	MT543Message	
Version	1.0	
Standard Details		
Name	MT543	
Version	SRG 2005	
Detailed Name	Deliver Against Payment	
escription		
This message is s institution). The a agent (sub custoo has an account wi	sent by an account owner to an account servicer (account servicing account owner may be a global custodian which has an account with its local dian) or an investment management institution or a broker/dealer which ith their custodian.	
This message is (used to:	
a) instruct the d book-entry, to a s	elivery of financial instruments against payment, physically or by specified party (the function of the message is NEWM)	•
	Version Info	

See Also:

<u>SWIFT External Format UI</u> <u>Creating a SWIFT Format</u> <u>Entering the SWIFT Specification</u>



SWIFT External Format UI

The **External Format – SWIFT** UI has 3 tabs – **Header**, **Data** and **Trailer** to represent the header block, text block and trailer block of the SWIFT message. The header and trailer types have to be specified while creating the external format. The header/trailer fields cannot be modified or removed.

See Also:

External Format – SWIFT (Header/Trailer) Swift User Message (Data) System/Service Message Format Options Creating a SWIFT Format Entering the SWIFT Specification SWIFT External Message UI Expanding/Collapsing SWIFT Fields

External Format - SWIFT (Header/Trailer)

The **External Format - SWIFT (Header)** UI shows the pre-defined fields as per the Header/Trailer option chosen during creation. As noted earlier, you have the option to choose **SWIFT Input / SWIFT Output / SWIFT Input/Output / FICC Header** (Custom Header) / **None**, when creating the SWIFT external format.

See Also:

SWIFT Input Header/Trailer SWIFT Output Header/Trailer SWIFT Input/Output Header/Trailer FISC Header Format Options Swift User Message (Data)



SWIFT Input Header/Trailer

When you choose this option, the **Header** and **Trailer** panel has the following fields for a SWIFT external message format.

External Format - Swift [IM950]		
Header Data Trailer		
	P	
Field Name	Туре	
🔄 Basic Header	Section	
Application Identifier	String	
♦ Service Identifier	String	
♦ LT Identifier	String	
🔶 Session Number	String	
Sequence Number	String	
Application Header	Section	
Input/Output Identifier	String	
♦ Message Type	String	
♦ Receiver's Address	String	
♦ Message Priority	String	
♦ ² Delivery Monitoring	String	
♦ ² Obsolescence Period	String	
🚭 ² User Header	Section	
♦ ² Service Identifier	String	
Panking Priority	String	
♦ ² Message User Reference	String	
♦ ² Validation Flag	String	
♦ ² Addressee Information	String	
Section Properties		
Repeating		
Optional		



External Format - Swift [IM950]				
Header Data Trailer				
	-			
Field Name	String			
Proprietary Authentication Code	String			
♦ ² Checksum	String			
♦ ² System Originated Message	String			
♦ ² Test And Training Message	String			
♦ ² Possible Duplicate Emission	String			
♦ ² Delayed Message	String			
♦ [?] Possible Duplicate Message	String			
♦ ² Message Reference	String			
Properties				
Optional 🔽				
Length 8				
Tag MAC				

The Section Properties panel in the Header panel shows the properties of the header block, such as whether it is Repeating and Optional. The Properties panel shows the properties of a field (shown when a field is selected). It shows whether the field is Optional and it's Length. For fields of User Header block and Trailer, additionally the Tag of the field is shown. The fields cannot be added, altered or removed for Header and Trailer.



Properties	
Optional	2
Length	3
Tag	103

The field and section properties displayed are not editable.

See Also:

<u>SWIFT Output Header/Trailer</u> <u>SWIFT Input/Output Header/Trailer</u> <u>FISC Header</u> <u>Format Options</u> <u>Swift User Message (Data)</u>

SWIFT Output Header/Trailer

When you choose this option, the **Header** and **Trailer** panel has similar fields as that of a SWIFT Input Header/Trailer except for the Application Header block in Header section which has different set of fields as shown below.

External Format - Swift [a]		
Header Data Trailer		
☐ ☐ Ă ↑ ↓ ↓ ↓ ↓	P	
Field Name	Туре	
🗋 Basic Header	Section	
🔄 Application Header	Section	
♦ Input/Output Identifier	String	
🔶 Message Type	String	
🔶 Input Time	String	
♦ Message Input Refere	String	
🔶 Output Date	String	
🔶 Output Time	String	
🔶 Message Priority	String	

See Also:

SWIFT Input/Output Header/Trailer FISC Header Format Options



Swift User Message (Data)

SWIFT Input/Output Header/Trailer

When you choose this option, the **Header** and **Trailer** panel has similar fields as that of a SWIFT Input Header/Trailer except for the Application Header block in Header section which is divided as Application Header Input and Application Header Output as shown below.

External Format - SWIFT [IM950]	
Header Data Trailer	
□ □ 20 ↑ ↓ ↓ ↓ ↓	12 🔟
Field Name	Туре
🗋 Basic Header	Section
🚽 Application Header Input	Section
♦ Input/Output Identifier	String
🔶 Message Type	String
Receiver's Address	String
🔶 Message Priority	String
Palivery Monitoring	String
♦ ² Obsolescence Period	String
🚭 ² Application Header Output	Section
♦ Input/Output Identifier	String
♦ Message Type	String
🔶 Input Time	String
🔶 Message Input Reference	String
🔶 Output Date	String
🔶 Output Time	String
🔶 Message Priority	String
📑 ² User Header	Section



Ex	ternal Form	at - SWIFT	[IM950]			
F	leader Da	ata Traile	er			
æ	1 🖬 🏭	î 4	¢= =			P
		Field Nam	ne		Ту	pe
	♦ ² Messag	e Authentica	ation Cod	e	String	
	♦ ² Propriet	ary Authent	ication Co	ode	String	
	♦ ² Checks	m			String	
	♦ [?] System	Originated	Message		String	
	♦ ² Test An	d Training N	Aessage		String	
	♦ ² Possible	e Duplicate I	Emission		String	
	♦ ² Delayed	Message			String	
	♦ ² Possible Duplicate Message					
♦ ² Message Reference			String			
×	Properties-					
	Optional	V				
	Length 8					
ង	Tag	MAC]		
Properti						

The Section Properties panel in the Header panel shows the properties of the header block, such as whether it is Repeating and Optional.



The Properties panel shows the properties of a field (shown when a field is selected). It shows whether the field is Optional and it's Length. For fields of User Header block and Trailer, additionally the Tag of the field is shown. The fields cannot be added, altered or removed for Header and Trailer.



×	Properties-	
l	Optional	<i>V</i>
rties	Length	4
Prope	Tag	113

The field and section properties displayed are not editable.

See Also:

FISC Header Format Options Swift User Message (Data)

FISC Header

When you choose this option, the **Header** and **Trailer** panel has the following fields for a SWIFT input/output message format.

Ex	External Format - Swift [FISC]		
ſ	Header Data Trailer		
	🕮 🛍 🐉 🏌 🎝 🖇 📽		
		Field Name	Туре
		♦ Password	String
		🔶 Sender	String
10000		♦ MessageType	String
		♦ Receiver	String



External Format - Swift [MT5430ut] 🔗
Header Data Trailer
□ □ 割 ↑ ↓ ↓ ↓ ↓
Field Name Data Type Description
Properties

The trailer has no fields and is blank in this case. Field properties **Optional** and **Length** are displayed in the **Properties** panel for the header.

Note:

When you choose the option 'None', the Header and Trailer sections will be empty.

See Also:

SWIFT Input Header/Trailer SWIFT Output Header/Trailer Format Options Swift User Message (Data)

Swift Format Options



6	Swift Format Options 🛛 🔀
	Header/Trailer Options
	Swift Input Header/Trailer
	🔿 Swift Output Header/Trailer
	○ Swift Input/Output Header/Trailer
	○ Custom Header/Trailer
	🔿 No Header/Trailer
1	Max Length 2000
	OK Cancel 🚱 Help

The same set of Header/Trailer options that were available during message creation is available here too. (Custom Header/Trailer corresponds to FICC Header).

You can set the maximum length for the message by entering the length value in the 'Max Length' text box. The value specified should be an integer value.

Max Length accepts values in the range '0 to 9999' and '10000'. During runtime, if the length of the input value exceeds the maximum length specified in format options, it generates error as 'Message Length exceeded'. For example, consider a message with maximum length value 10000. If the input value exceeds the length specified then error is thrown as "Message Length exceeded. Maximum length allowed '10,000', actual message length '10,115'.".

See Also:

SWIFT Input Header/Trailer SWIFT Output Header/Trailer SWIFT Input/Output Header/Trailer FISC Header Swift User Message (Data)



Swift User Message (Data)

The **External Format - SWIFT User message (Data)** UI looks as below. The message format is shown in the table at the top, and a panel at the bottom shows the properties of the row selected in the table. The properties panel dynamically changes as the row selected in the table changes.



The message format (ie, the fields) is automatically populated when created from a pre-defined format. Only the optional fields can be enabled or disabled in this case.

Whereas, the table is blank when created from an empty message format and the tool bar buttons are enabled so as to add, modify and move the fields as required. In this case, there is no need for the **Enabled** column in the table and the properties panel, unlike the previous case, as the user adds the fields as and when required.



Ext	ernal Forma	t - swi	FT [MT54	3]*	ĸ						
П	eader Dat	ta Tr	ailer								
	🖽 G 🛛	2 🖄	1	Ĵ,	())	⇒ 🛱		P			
	Fie	eld Nam	e		۲	ype			Descript	ion	
	🯹 95a				Swift F	ield	Party	/			
	Q ² BUYR				Qualifi	er	Buye	r			
	♦ ² BIC	/BEI			String		P Fo	rmat			
	🔶 Nar	ne_8_A	ddress		String		Q Fo	rmat			
	🔶 Dat	a_Sour	e_Schem	he	String		R Fo	rmat			
	🔶 [?] Pro	prietary	_Code		String		R Format				
	🔶 For	matOpt	ion		Charao	ter				33	
	Q? DEAG				Qualifi	er	Delivering Agent				
	Q² DECU				Qualifier Deliverer's Custodian		ian				
	Q? DEI 1				Qualifi	er	Deliverer's Intermediary 1			ediary 1	
	Q? DEI2				Qualifi	er	Deliv	'erer'	s Interme	ediary 2	-
x	- 0										
	Repeating	\checkmark	Enabl	Pr	ese	Qualifier	Rep	ea	Options	Description	_
н.				M		BUYR			P, Q, R	Buyer	•
<u>s</u>	Optional		Ľ	OR		DEAG			P, Q, R	Delivering	
ert			2	OR		DECU			P, Q, R	Deliverer'	•
2 d											
Propertie				OR		DECU			P, Q, R	Deliverer'	•

The sub-fields displayed under the fields are a collection of sub-fields in the options selected while creating or modifying the field (using the **Create Field** or **Modify Field** dialog). ie, in the above figure the qualifier BUYR lists the sub-fields of the selected options P, Q, R only though other options are also available (See figure below).

6	Create Fie	ld				X
Te	aq	D	escription			
9	5	T P	'arty		Remove Customize	
	<u> </u>					
	Selected	Option	Format	Specification	Description	
		С	:41c//21a	(Qualifier) (Country Code)	4	•
		Р	:41c(//41a21a2	(Qualifier) (BIC/BEI)		
		Q	:4!c//4*35x	(Qualifier) (Name & Address)		
		R	:4!c/8c/34x	(Qualifier) (Data Source Scheme		
		s	:4!c/[8c]/4!c/	(Qualifier) (Data Source Scheme		8
		т	-41c	(Oualifier)		•



Note that the sub-fields of a generic field are displayed under the qualifier in the **External Format - SWIFT** UI, similar to a sequence or field. This is because, though the qualifier is also a sub-field, it distinguishes the generic field. Hence the rest of the sub-fields are shown under it.

See Also:

SWIFT Sequence Info SWIFT Field Info (Generic) SWIFT Field Qualifier Info SWIFT Field Info (Non-Generic) SWIFT Sub Field Info

SWIFT Sequence Info

When a SWIFT sequence is selected in the **External Format - SWIFT** UI, the bottom panel shows the properties of the sequence as shown below.



The panel shows whether the sequence is **Repeating** and it is **Optional** or not. The **Code** of the sequence if available is also displayed. The panel just displays the properties and the properties could not be edited here. To modify the properties, refer <u>Updating a SWIFT Field</u> section. This applies to sequences also.



See Also:

<u>SWIFT Field Info (Generic)</u> <u>SWIFT Field Qualifier Info</u> <u>SWIFT Field Info (Non-Generic)</u> <u>SWIFT Sub Field Info</u> <u>Adding a SWIFT Sequence</u>

SWIFT Field Info (Generic)

When a generic field is selected in the **External Format - SWIFT** UI, the bottom panel shows the properties of the field as below.

		Field	Name	0	ata Type	Enabl	D	escription	
	📿 98a S				wift Field	r	Date/Time		
	🐼 99B				wift Field	V	NumberCou	nt	
	Q SETT				ualifier	Ľ	Current Set	tlement Instructio.	
	🔶 Number			Ir	iteger		B Format		
	 TOSE 			Q	ualifier	r	Total of Link	ed Settlement In	
	🔶 Number			Te	togor		B. Format		
		🔶 Num	iber	11	iteger		Diformat		
Sw	ift Field In	fo (Gener	ic)	Presence	Qualifier	Reneat	ing Ontions	Description	
Sw	ift Field In epeating	fo (Gener	ic) Enabled	Presence	Qualifier	Repeat	ing Options	Description	
Sw R/ O	ift Field In epeating ptional	fo (Gener	Enabled	Presence	Qualifier SETT TOSE	Repeat	ing Options B B	Description Current Settle Total of Linked	
Sw Ri O	ift Field In epeating ptional	fo (Gener	Enabled	Presence 0 0	Qualifier SETT TOSE TORE	Repeat	ing Options B B B B	Description Current Settle Total of Linked Total of Linked	

The check boxes **Repeating** and **Optional** show the field properties. For a generic field, the qualifiers are displayed in a table, along with their properties – **Presence** (O – Optional & M - Mandatory), **Repeating**, **Description** of the qualifier and the **Options** mapped to it. If the format is created from an existing one, an additional **Enabled** column is also shown, only which is editable. This is provided to allow the user to select the Qualifiers applicable for the field at that occurrence. To modify the field properties, refer <u>Updating a SWIFT Field</u> section.

See Also:

<u>SWIFT Sequence Info</u> <u>SWIFT Field Qualifier Info</u> <u>SWIFT Field Info (Non-Generic)</u> <u>SWIFT Sub Field Info</u> <u>Adding a new Generic Field</u>



SWIFT Field Qualifier Info

When a qualifier of a generic field is selected in the **External Format - SWIFT** UI, the bottom panel shows the properties of the qualifier.

	Field I	Name		Data Type	Enabl	Description
	Indicator S			String		F Format
- 🗔	12a			Swift Field	r	Type of Financial Instrument
	🥝 CLAS	s		Qualifier	r	Classification Type
	🧕 OPS	T		Qualifier	Ľ	Option Style
	🧕 OPT.	T		Qualifier	Ľ	Option Type
- 🗔	11A			Swift Field	Ľ	Currency
Swift Field Q	ualifier Inf	o Enabl	Option	Form	at	Specification
		ľ	A	:4!c/[8c]/	30x	(Qualifier) (Data Source Sche

The check boxes **Repeating** and **Optional** show the qualifier properties. The **Options** that are associated with the qualifier are shown in a table. The **Format** and **Specification** of each option are shown in the table. For a format created from an existing one, an additional **Enabled** column is also seen, only which is editable. This is provided to allow the user to select the associated options of the qualifier for the field at that occurrence. To modify the properties, refer <u>Updating a SWIFT Field</u> section.

See Also:

<u>SWIFT Sequence Info</u> <u>SWIFT Field Info (Generic)</u> <u>SWIFT Field Info (Non-Generic)</u> <u>SWIFT Sub Field Info</u> <u>Adding a new Generic Field</u>



SWIFT Field Info (Non-Generic)

When a non-generic field is selected in the **External Format - SWIFT** UI, the bottom panel shows the properties of the field as shown below.

		Field N	lame		Data Type	Enabl	Description	
		🔁 A S			Swift Se	\mathbf{V}	General Information	
		📿 20C			Swift Field	\mathbf{V}	Reference	200
		🐼 23G			Swift Field	V	Function of the Message	
		🔶 Functio	n		String		G Format	
		🔶 Subfun	ction		String		G Format	
		🐼 98a			Swift Field	Ľ	Date/Time	-
ſ	Sw	rift Field Info (Non-G	eneric)					
	R	epeating	Enabled	Optio	n Format		Specification	
			~	G	4!c[/4!c]		(Function) (Subfunction)	
	0	pptional						
L								

The check boxes **Repeating** and **Optional** show the field properties. The **Options** that are associated with the field are shown in a table along with their **Format** and **Specification**. For a format created from an existing one, an additional **Enabled** column is also seen, only which is editable. This is provided to allow the user to select the required options for the field at that occurrence. To modify the properties, refer <u>Updating a SWIFT Field</u> section.

See Also:

SWIFT Sequence Info SWIFT Field Info (Generic) SWIFT Field Qualifier Info SWIFT Sub Field Info Adding a Non-Generic Field



SWIFT Sub Field Info

For a sub-field of a field (generic or non-generic) selected in the **External Format -SWIFT** UI, the bottom panel looks as shown below.

Field Name	Alias	Туре	Enabled	
в		Swift Seq	P	 ^
🕰 94В		Swift Field	~	
🤿 98a		Swift Field	V	
Q SETT		Qualifier	V	
♦ ² Date		String		
♦ [?] Data_Source		String		
♦ [?] Date_Code		String		
♦ ² Time		String		
FormatOption		Character		•

-Swift Sub Field Info-

Option	Format	Optional
	8!n	
	8!n	

Sub-field Info (Generic Field)

Field Name	Alias	Туре	Enabled	
🔁 A		Swift Seq	₽∕	🔺
📿 20C		Swift Field	▶∕	
🔯 23G		Swift Field	₽∕	
Function		String		
♦ ² Subfunction		String		
🏹 98a		Swift Field		
🕰 99в		Swift Field		
📇 [*] A1		Swift Seq		
🗳 22F		Swift Field		👻

-Swift Sub Field Info-

Optio	n	Format	Optional	Validations
ì	4!c		¥	



Sub-field Info (Non-Generic Field)

The **SWIFT Sub Field Info** panel shows the sub-field's **Format**, whether it is **Optional** and the **Option** in which it occurs. For each option (if the sub-field is specified in more than one option), the sub-field details are shown in separate rows. Validations can be added by clicking the 'Validations' button.

See Also:

SWIFT Sequence Info SWIFT Field Info (Generic) SWIFT Field Qualifier Info SWIFT Field Info (Non-Generic) Adding a SWIFT Field Adding validations for a sub-field

System/Service Message

A System/Service message can be created in designer either from

Existing SWIFT message format, or Empty message format

The existing SWIFT formats are available as XML files in the location *< installation dir*>\config\swift\format.

See Also:

System Field Dictionary

Creating an empty Service/System message format

- Right-click the Cartridge node in Designer and select the New External Message menu item from the context menu to create a SWIFT external format.
- 2. In the **New External Message** dialog that appears, enter the **Transformation Name** and select **SWIFT** from the **External Message** listbox. Click OK.
- 3. In the New Swift Message Format dialog that appears, select Create empty message format radio button. Click Next.



Swift Message Format	
Find Message Find Message Swift Message Formats Customer Payments & Cheques Financial Institution Transfers Service System Gravitation MT010 MT011 MT019 MT020 MT022 MT022 MT055 MT055 MT061 MT082 MT094	Format Name Version Detailed Name Category Description
Message Creation Options Create empty message format Create based on selected format Back Next	Cancel 2 Help

4. Click 'Next'. In the next dialog box select the header type required and the message type. The 'Message Type' combo box lists the message types. The types of messages are 'User', 'System' and 'Service'. To create a System message select the type as 'System'. To create a Service message, select the type as 'Service'.



🗟 New Swift Message Format 🛛 🔀
Header Trailer Options
Header/Trailer SWIFT_INPUT_HEADER
Validation Options
Include all validations (NVR, CV etc)
O Do not include validations
Edit Options Read only mode (message cannot be modified) Allow changes (fields and validations can be m
Message type Options Message Type System 💌
▲ Back Finish Cancel @ Help

5. Click 'Finish' to create the System/Service message.

See Also:

<u>Creating a SWIFT System/Service Format Based on an Existing SWIFT Message</u> <u>Format</u> <u>Adding a System Field</u> <u>Adding a Group</u>

Creating a SWIFT System/Service Format Based on an Existing SWIFT Message Format

- Right-click the Cartridge node in the Designer. Select the New External Message menu item from the context menu to create a SWIFT external format
- 2. In the New External Message dialog that appears enter the Transformation Name and select SWIFT from the External Message listbox . Click OK.



 In the New Swift Message Format dialog that appears, select an existing format based on which the new format is to be created. Select Create based on selected format radio button. Click Next.

New Swift Message Format	
Find Message Find Existing Formats Swift Message Formats Customer Payments & Cheques Financial Institution Transfers Service System Gravitation Gravitat	Format Name MT010 Version SRG 2007 Detailed Name Non-Delivery Warning Category System Description This message indicates that a message that was being monitored in case of non-delivery, was not delivered before its obsolescence period expired.
Message Creation Options O Create empty message format	
Oreate based on selected format	
▲ Back Next	Cancel 🚱 Help

4. In the next dialog that appears you have various options to choose Header/Trailer, Validation and Edit options. Click 'Finish' to create the message after selecting the appropriate options.

Note:

The existing SWIFT system/service messages are under category 'System' and 'Service' respectively. When a format based on a message under these categories is created the type of the message is automatically set as either System/Service.



See Also:

<u>Creating an empty Service/System message format</u> <u>Adding a System Field</u> <u>Adding a Group</u>

Adding a System Field

A system field can be either

A simple field. A field that does not have any sub-fields. For e.g. field 'swift-address' (tag 102). The format of the field is '4!a2!a2!c1!c3!c'.

A complex field. A field that consists of several sub-fields. For e.g. field 'mir' (tag 106) has the following format '(6!n)(4!a2!a2!c1!c)(3!c)(4!n)(6!n)'.

See Also:

Adding a Simple Field Adding a Complex Field Fields Separated by OR/AND Adding a Group System Field Dictionary

Adding a Simple Field

A simple field is a field that does not have any sub-fields. For e.g. field 'swiftaddress' (tag 102). The format of the field is '4!a2!a2!c1!c3!c'. To add the field the following steps need to be performed.

- 1. In the SWIFT external format UI, click the Houtton. The 'Add System Field' dialog will be displayed.
- 2. Select the field to be added ('swift-address') in the 'Name' combo box. Or else you can type the field tag (102) in the 'Tag' combo box. The format details of the field are displayed.



🗟 Add S	ystem	Field	×
Name 8	& Tag-		
Name	swift	address (102) 👻	
Tag	102	▼	
Format			1
Format	:	(4!a2!a2!c1!c3!c)	
Specific	cation	(swift-address)	
code XX)	×.		
Occurer	nce —		
Min Oc	curs	1 🗸	
Max O	ccurs	1 🗸	
		OK Cancel	

- 3. You can specify the min/max occurs of the field in this dialog. If the field is nonrepeating the field will be added as a simple field. In case a simple field is repeating select the max occurs accordingly. In this case the field will be added as a section. The format, tag and specification of the field cannot be changed. By default, a simple field is added as mandatory and non-repeating.
- 4. Click 'OK' to add the field.



External Format - SWIFT [MT010]					
Header Data Trailer					
🖽 🖆 🖀 🏠 🦛	📫 😭				
Field Name	Туре	Description			
♦ swift-address	String	Complete 12-character			
System Field Info Tag 102 Format (4!a2!a2!c1!c3!c) Optional [

- 5. You can change the optional property of the field in the 'System Field Info' panel. In some cases the same field may be present twice in the message. The name of the field can be changed in such cases. The description of the field can also be changed. The type, tag and format of a field cannot be changed.
- 6. In case the simple field is repeating and the max occurs has been specified it will be added as a section as shown below.



External Format - SWIFT [MT	010]		8
Header Data Trailer			
🖽 📫 💥 🏠 🦛	📫 😭		
Field Name	Туре	Description	
🔿 swift-address	Section	Complete 12-character	
♦ swift-address	String		
System Field Info Tag 102			
Format (4!a2!a2!c1!c3	!c)		
Min Occurs 1	• N	Max Occurs Unbounded	•

7. The min/max Occurs, description and field name can be changed.

See Also:

Adding a Complex Field Fields Separated by OR/AND Adding a Group

Adding a Complex Field

A complex field consists of several sub-fields. For e.g. field 'mir' (tag 106) has the following format '(6!n)(4!a2!a2!c1!c)(3!c)(4!n)(6!n)' with the specification (date)(lt-identifier)(branch-code)(session-number)(isn). To add this field the following steps need to be done.

- 1. In the SWIFT external format UI, click the 'H' button. The 'Add System Field' dialog will be displayed.
- Select the field to be added ('mir') in the 'Name' combo box. Or else, you can type the field tag (106) in the 'Tag' combo box. The format details of the field are displayed. Specify the 'min/max occurs' for the field based on the message specification. Click OK to add the field. The field is added as a section. By default the field is optional and repeating.



External Format - SWIFT [M	Т010]	Series de la companya de la 🎘			
Header Data Trailer					
🖽 📫 🎦 🏦 🏠 🌾	ः 📫 😭				
Field Name	Туре	Description			
🟹 mir	Section	MIR containing:			
🔶 date	String				
🔶 lt-identifier	String				
♦ branch-code	String				
🔶 session-number	String				
🔶 isn	String				
-System Field Info					
Tag 106					
Format (6!n)(4!a2!a2!c1!c)(3!c)(4!n)(6!n)					
Min Occurs 0	-	Max Occurs Unbounded 💌			

3. The field can be set as optional/repeating by specifying values for 'min/max occurs' in the 'System Field Info Panel'. In case the same field is present twice in the message, the name of the field can be changed in the 'Field Name' column. Please note that the name of sub-fields cannot be changed.

See Also:

Adding a Simple Field Fields Separated by OR/AND Adding a Group

Fields Separated by OR/AND

In the specification for 'System' messages you occasionally see fields/groups separated by 'OR' or 'AND'. In such cases the following guidelines need to be followed while adding the fields/groups.

- 1. If 'OR' is present between the fields in a table, the fields should be added as optional. The validation for the presence of the fields has to be done separately.
- 2. If 'AND' is present between fields and if the first field is mandatory, then enter the specification as it is. No additional validation needs to be done separately.



3. If 'AND' is present between the fields and the first field is optional, enter the fields as optional. Additional validation for the presence of fields needs to be done separately.

See Also:

Adding a Simple Field Adding a Complex Field Adding a Group

Adding a Group

- 1. In SWIFT external format UI, click the Di button to add a group. A new group is added.
- 2. The group name can be specified in the 'Field Name' column. In 'System Field Info' panel you can specify the min/max occurs for a group.

External Format - SWIFT [MT010]				
Header Data Trailer				
🖽 📫 🎬 🏠 🦣	📫 🖻			
Field Name	Туре	Description		
🔄 Group 1	Section			
♦ swift-address	String	Complete 12-character address,		
-Sustem Field Info				
Min Occurs 0	•			
Max Occurs Unbounded	-			

Groups can be nested within another group.



Note:

'Choice' is not supported in case of groups. The groups added are treated as sequence. So while adding an OR group, make sure that it is added as an optional group. Validations to check the presence of the groups need to be done separately.

See Also:

Deleting a Field/Group Adding a Simple Field Adding a Complex Field Fields Separated by OR/AND

Deleting a Field/Group

1. Select the field/group to be deleted and click ' button. The field/group will be removed.

Note

Sub-fields cannot be deleted separately.

See Also:

Adding a Group Adding a System Field

System Field Dictionary

The system field dictionary contains the list of all system fields along with the formats, tag, specification and description. Any additional validation that needs to be done for a field is also specified in the field dictionary. Any changes that need to be done to a field's format/specification/validation should be done here.

The entry for field 'service-code' (tag 103) is shown below.

```
<SwiftSystemFieldDef Name="service-code" Tag="103">

<Format><![CDATA[3!a]]></Format>

<Specification><![CDATA[(service-code)]]></Specification>

<Description><![CDATA[SWIFTNet FIN Copy Service Code.]]></Description>

</SwiftSystemFieldDef>
```

See Also:

Specifying Validations for a Field Specifying Validations for a Sub-field



Adding a System Field Adding a Group

Specifying Validations for a Field

In case where validation needs to be done for the value of a field, it can be specified along with the field definition. The entry for field 'msg-priority' (tag 104) is shown below.

```
<SwiftSystemFieldDef Name="msg-priority" Tag="104">
 <Format>1!a</Format>
 <Specification>(msg-priority)</Specification>
 <Description>Message Priority, where:
                   a) S = system
                   b) U = urgent
                   c) N = normal
  </Description>
  <Validations>
     <Validation>
      <formula>In($value, "S", "U", "N")</formula>
      <error-code>V08</error-code>
      <actionmessage>Invalid Message Priority '" + $value+"'"</actionmessage>
   </Validation>
  </Validations>
</SwiftSystemFieldDef>
```

The allowed values for the field are 'S', 'U' and 'N'. This has been specified using the 'Validation' tag under 'Validations' tag. Any formula that can be used in 'Designer' can be specified in the 'formula' tag. Error code and action message can also be specified. The error code and action message specified will be set in the exception that occurs when the validation specified fails.

The 'Validations' tag is optional. Use it only if any additional validation needs to be done.

Note:

The field value can be accessed only using the '\$value' literal.

See Also:

Specifying Validations for a Sub-field

Specifying Validations for a Sub-field



In some cases validation may need to be specified for a 'sub-field' of a field. For e.g. for field 'mir' (tag 106) validation needs to be done for sub-field 'date'. It is specified as shown below

```
<SwiftSystemFieldDef Name="mir" Tag="106">
 <Format>(6!n)(4!a2!a2!c1!c)(3!c)(4!n)(6!n)</Format>
 <Specification>(date)(lt-identifier)(branch-code)(session- number)(isn)
 </Specification>
  <Description>MIR containing:
                    a) Input date
                    b) Input LT including branch code
                    c) Session number
                    d) ISN
  </Description>
  <Validations>
    <Validation>
      <subfield>date</subfield>
      <formula>IsDate($value,"yyMMdd")</formula>
      <error-code>V04</error-code>
      <actionmessage>"Invalid Input Date '" + $value + "'"</actionmessage>
     </Validation>
  </Validations>
</SwiftSystemFieldDef>
```

While specifying validations for sub-field, in the 'Validation' tag, tag 'subfield' must be added. The value of this tag should be the name of the sub-field for which validation needs to be applied.

Note:

The field value can be accessed only using the '\$value' literal.

If the name of a sub-field is changed and validation has been specified for it, the 'subfield' tag needs to be updated correspondingly.

See Also:

Specifying Validations for a Field

Expanding/Collapsing SWIFT Fields

Many SWIFT messages are very large and it is difficult to view the entire message in the External Format UI table. The user can expand/collapse fields so that message part in which he is interested in can be viewed in the External Format UI table.



Right click the SWIFT External Format UI table and select 'Expand' menu item.

➡ Collapse	▶	Sequence
• Expand	Þ	All
🖹 Сору		Sequences
B Daste		Fields
	_	Qualifiers
Find		
🚈 Table Auto Format		
]‡ Row Height		
🥌 View As HTML		

You can select 'Expand/Collapse' menu items to expand/collapse SWIFT fields.

Expanding Fields

Select the 'Expand' menu item.

Select 'All' sub menu item. All fields including sequences, fields and qualifiers will be expanded.

Select 'Sequences' sub menu item. Only sequences will be expanded. Fields within sequences will not be expanded.

Select 'Fields' sub menu item. Fields within sequences will be expanded. The qualifiers within fields will not be expanded. If the sequences themselves are collapsed and 'Fields' are expanded you will not be able to view them. You have to expand the sequences first and then expand fields.

Select 'Qualifiers' sub menu item. The qualifiers present within fields will be expanded. The fields and sequences themselves should be expanded for the expanded qualifiers to be viewed.

Collapsing Fields

Select the Collapse menu item

Select 'All' sub menu item. All sequences/fields/qualifiers will be collapsed.

Select 'Sequences' sub menu item. All expanded sequences will be collapsed. However fields/qualifiers within sequences will not be collapsed.

Select 'Fields' sub menu item. All expanded fields will be collapsed.



Select 'Qualifiers' sub menu item. All expanded qualifiers will be collapsed.

See Also:

SWIFT External Format UI Exporting a SWIFT Message Format to Library

Exporting a SWIFT Message Format to Library

A SWIFT message format once fully entered in Designer can be saved so that it is available for creating other formats depending on it.

1. To Export a SWIFT format to library, right-click the SWIFT format node in the **Explorer** and choose the context menu **Export to Library**.



2. The **Export to Library** dialog appears. Enter the **Name**, **Version**, **Detailed Name**, **Category** and **Description** of the format. The category entered can be an existing one, or a new category. From the Versions drop down select the version for the message format. Click OK.



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Find	Message Details		
Find	Name		
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	Version		
SRG 2008	SRG 2007		
Messages	S. C. 2007		
📯 🛅 Cash Management & Customer Sta	Detailed Name		
• Collections & Cash Letters	Non-Delivery Warning		
Customer Bayments & Cheques	Category		
	System		
Documentary Credits & Guarantee			
Financial Institution Transfers	Description		
💁 🗋 Securities Markets	This message indicates that a message that		
🕞 🗋 Service	was being monitored in case of non-delivery, was not delivered before its obsolescence period		
🗣 🗋 System	expired.		
Travellers Cheques			
🗢 🗋 Treasury Markets Foreign Exchang			
C I Treasury Markets Metals			
ок	Cancel 🕜 Help		

x

- 3. The SWIFT message format is saved as XML file in the location *< installation dir>*\config\swift\format in the given **Format Name**.
- 4. SWIFT Formats saved this way are available for creating formats in future. Refer <u>Creating a SWIFT Format based on an existing SWIFT message format</u>.

See Also:

<u>Creating a SWIFT Format from an empty message format</u> <u>Exporting a SWIFT Message Format</u> <u>Importing a SWIFT Message Format</u> <u>Sample Exported HTML File</u>

Exporting a SWIFT Message Format



SWIFT message format can also be saved using the usual export method, allowing to save the format in XML, HTML and TPLUS formats.

1. To save a SWIFT format, select the SWIFT format node in the **Explorer** and choose the context menu **Export...**.



- 2. In the **Export** dialog that appears, select the location to save the exported file. Select the file type in the **Files of type** combo and enter a name to save the file in the **File name** text field. Click **Save** button.
- Note: You also have the option of exporting the file (in any format you have chosen) to the Clipboard by clicking the 'Export to Clipboard' button in the dialog. If you want to simultaneously open the exported file, you can select the 'Open Exported File' checkbox.

🗟 Export				×
Look <u>i</u> n:	🖆 temp 🔹 👻			888 B
File <u>n</u> ame:	MT543In			Save
Files of <u>t</u> ype:	XML File (.xml)		•	<u>C</u> ancel
🖌 Open Expor	ted File	Expo	ort to (Clipboard


4. The SWIFT format is saved in the location with the file name mentioned.

See Also:

Sample Exported HTML File Importing a SWIFT Message Format

Importing a SWIFT Message Format

SWIFT message format saved using the export method, can be imported. This is supported in XML and TPLUS formats.

1. To import a SWIFT format, right-click the SWIFT format node in the **Explorer** and choose the context menu **Import...**.



2. In the **Import** dialog that appears, select the XML or TPLUS file to be imported. Click **Open** button.



🗟 Import	×
Look jn:	🗆 switt 💌 🛱 🖬 📴 📴 🔚
📑 format	
MT543 xml	
Fie name:	MT543.xml
Files of type:	XML File (xm)

The message format in the file is imported.

See Also:

Exporting a SWIFT Message Format

Sample Exported HTML File

A sample of the SWIFT message format exported in HTML:

MT543In

SCOPE

This message is sent by an account owner to an account servicer (account servicing institution). The account owner may be a global custodian, which has an account with its local agent (sub custodian) or an investment management institution or a broker/dealer, which has an account with their custodian.

This message is used to:

- 1. instruct the delivery of financial instruments against payment, physically or by book entry, to a specified party (the function of the message is NEWM)
- 2. request the cancellation of a deliver against payment instruction previously sent by the account owner (the function of the message is CANC)



3. pre-advise the account servicer of a forthcoming deliver against payment instruction (the function of the message is PREA).

The instruction may be linked to other settlement instructions, eg, for a turnaround or back-to-back, or other transactions, eg, foreign exchange deal, using the linkages sequence.

MT543In Format Specifications

Status	Тад	Qualifier	Generic Field Detailed Name Field Name		Content/Optio ns	No		
Mandatory Sequence A General Information								
М	16R		Start of GENL Block		GENL	1		
М	20C	SEME	Reference	Sender's Reference	:4!c//16x	2		
М	23G			Function of the Message	4!c[/4!c]	<u>3</u>		
0	98a	PREP	Date/Time	Preparation Date/Time	A,C	<u>4</u>		
>								
0	99B	4!c	NumberCount (See Subscription)		:4!c//3!n	5		
>Repetitive Optional Sequence A1 Linkages								
М	16R			Start of Block	LINK	6		
0	22F	LINK	Indicator	Linkage Type Indicator	:4!c/[8c]/4!c	7		



Status	Тад	Qualifier	Generic Field Name	Detailed Content/Optio Field Name ns		No			
0	13A	LINK	Number Identification	Linked Transaction	:4!c//3!c	8			
М	20C	4!c	Reference	(See : 4!c//16x Qualifier Description)		9			
М	16S			End of Block	LINK	10			
End Of Sequence A1 Linkages									
М	16S			End of Block	GENL	11			
End Of Sequence A General Information									
Mandatory Sequence B Trade Details									

Field Specifications

Field 16R: Start of Block

FORMAT Option R

16c

PRESENCE Mandatory

Field 20C: Reference: Sender's Reference

FORMAT Option C :4!c//16x (Qualifier) (Reference)

PRESENCE



Mandatory

QUALIFIER

Order	M/O	Qualifier	R/N	CR	Options	Qualifier Description
1	М	SEME	N		С	Sender's Reference

Field 23G: Function of the Message

FORMAT Option G 4!c[/4!c] (Function) (Subfunction) PRESENCE Mandatory

Field 98a: Date/Time: Preparation Date/Time

FORMAT Option A	:4!c//8!n	(Qualifier)(Date)	
Option C	:4!c//8!n6!n	(Qualifier) (Date) (Time)	

PRESENCE

Optional

QUALIFIER

Order	M/O	Qualifier	R/N	CR	Options	Qualifier Description
1	0	PREP	N		A,C	Preparation Date/Time

See Also:

Exporting a SWIFT Message Format